ALBERTA BUSINESS SERVICES INDUSTRIES

SURVEY RESULTS

Prepared for:

Alberta Career Development
and Employment,

Labour Market Industry Analysis Branch

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August, 1987

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DPA File #14860/4595

EXECUTIVE SUMMARY

1.0 SCOPE AND OBJECTIVES OF THE STUDY

The Business Services Sector is the fastest growing sector in the Canadian economy - employment grew by 67.8% between 1976 and 1985 while total employment grew by only 19.4%. A healthy business services sector also complements and strengthens other sectors in the economy. As such, Alberta Career Development and Employment commissioned a study of the Business Services sector in the province. The study was to encompass Industry Group 77 as defined in the Revised SIC System and included:

- o 771 Temporary Help and Employment Agencies
- o 772 Computer and Related Services
- o 773 Accounting and Bookkeeping Services
- o 774 Advertising Services
- o 775 Architectural, Engineering and Other Scientific and Technical Services
- o 776 Legal Services
- o 777 Management Consulting Services
- o 779 Other Business Services

The five specific objectives of this study as they evolved from the initial terms of reference were:

1. To determine current, historical and seasonal employment patterns by subsector;

2. To assess the current and anticipated future demand by occupation or critical skill areas for the sector and subsectors;

3. To assess future employment growth and decline by subsector and, if possible, by occupation or critical skill area;

4. To determine future training requirements for the sector and subsectors; and

5. To explore measures to enhance employment conditions within the sector and subsectors.

2.0 METHODOLOGY

A telephone survey of firms listed in Statistics Canada's Business Register formed the basis of the study. A basic questionnaire was developed for the entire sector and then adapted for each of the eight subsectors. The appropriate questionnaire plus an introductory letter

from the Deputy Minister of Career Development and Employment were mailed to each potential respondent approximately one week prior to the telephone interviewing to familiarize the respondent with the study and allow them time to gather any necessary information. A series of personal interviews and focus groups was also conducted to provide more in-depth information on future growth areas, potential manpower shortages and possible government incentives to help industries meet these shortages.

3.0 OVERVIEW OF THE INDUSTRY

Based on our survey of 1200 firms, the Alberta Business Services Sector is estimated to have approximately 8000 firms and 76,800 employees. The eight subsectors ranged in size from Employment Agencies and Temporary Help Services (134 firms and 4900 employees) and Advertising (237 firms and 1400 employees) to Architectural, Engineering and Other Scientific and Technical Services with 2,224 firms and 31,000 employees.

The sector is characterized by very small firms and substantial entry into and exit from the industries. As the majority of work done by firms in this sector is for other businesses, the sector is very responsive to changes in the general economy and has gone through substantial retrenchment in the last few years. The Architectural and Engineering group has suffered the most during the recent economic downturn in the province with 44% of the surviving firms in this industry employing fewer people in 1986 than they did in 1984. Advertising seemed to be the least affected with only 9% reduced employment while Computing Services had the highest proportion of growing firms during the last two years.

Increasing specialization combined with the economic recession has resulted in a decrease in the average size of firms. The two smallest subsectors in terms of average firm size, Management Consulting and Advertising, also indicated substantial and increasing use of subcontractors as a way of responding to the tight economic conditions and the trend toward more specialization.

As is common with small firms in general, business services firms find that the major barriers to upgrading the expertise of their employees through training to be cost, lack of resources and lack of time. Firms in the smaller centres and rural areas also encounter accessibility barriers, in that courses are not generally offered outside the major cities.

In summary, the Business Services Sector is made up of approximately 8000 firms that are typically very small, becoming more specialized and are highly impacted upon by changes in the provincial economy.

4.0 RECOMMENDATIONS

4.1 Quality of Records

If the provincial government is to develop a better understanding of the industry and is to develop the appropriate support programs if and when necessary, then more accurate records of firms active in the Business Services Sector must be maintained. Thirty-five percent of the sample drawn from the Business Register were found to be out-of-business, not listed in Alberta Consumer and Corporate Affairs records, had been or were being dropped from these records or did not have a telephone number for either the firm or the principal Directors. In some subsectors such as Management Consulting, more than 50% of the initial sample was lost for these reasons. Moreover a significant proportion of firms were misclassified in terms of size or SIC code.

We therefore recommend that Alberta Career Development and Employment strongly encourage Alberta Bureau of Statistics and Statistics Canada to maintain more current listings of active firms.

4.2 Computer-Oriented Training Initiatives

Increasing use of the computer is the most pervasive trend in today's economy and if Alberta industry is to remain competitive in the provincial, national and international markets, then computer familiarity and literacy must be increased. Computer-oriented courses, from basic familiarity to highly sophisticated state-of-the-art modelling, were identified as the single most pressing need in virtually all eight subsectors.

Numerous training programs already exist in both the public and private sectors and therefore the problem is one of stimulating more utilization rather than filling a service gap.

As such we recommend that Alberta Career Development and Employment develop a program of specifically targetted financial incentives for companies to develop/upgrade their employees' computer skills and capabilities.

4.3 Business Management and Communication Training Initiatives

The second most pressing manpower development need identified in the Business Services Sector was for more business management and communication skills. This requirement took two forms: a general need for employees to have better skills in these areas and a need for the

educational institutions to incorporate more business and communications courses as part of the curriculum in degree programs areas such as advertising, architecture, engineering and law.

Again the market for employee upgrading courses is reasonably well served with the offerings of the educational institutions and the Federal Business Development Bank but there may be an opportunity for the Department to expand their Alberta Training Program in this area to allow more firms to take advantage of these courses. Also, numerous respondents emphasized the point that new graduates required more understanding of how a business operates and better communications skills.

Therefore we also recommend the Department utilize its training programs to enhance business management and communication skills and that the Department work with Alberta Advanced Education to encourage the educational institutions to incorporate more business management and communications courses in their degree programs.

4.4 Support For Training Supplied By Professional Associations

In several of the professional areas some of the training is provided by the professional association which is very well placed to understand the educational upgrading needs of its members. However some of these associations are having difficulty providing this re-training because of the financial constraints created by the downturn in the provincial economy.

We recommend that Alberta Career Development and Employment consider providing support for professional training through programs offered by the respective professional associations where there is clear evidence that the need for professional upgrading/training exists.

4.5 Innovative Work/Institution Training Alternatives

Practical experience and on-the-job training are two of the most valuable learning processes available and are especially powerful when combined with formal education programs. These combined programs can be structured in a number of ways such as cooperative programs, internships, paid and unpaid education leaves, and voucher systems

The development of such programs was a consistent recommendation from each subsector in that they provide people at the entry level with more practical experience than is generally possible with the education programs currently available.

We therefore recommend the Department encourage these types of learning processes whenever possible but particularly in the high demand areas such as computers, business management and communications.

4.6 Marketing of Services and High Technology Products

A major goal of the provincial government has been the development of a viable high technology industry in Alberta and one very valuable suggestion to consistently come out of this survey was for the development of a specific program targetted to increasing the international marketing capabilities of the firms in the high technology industry. Alberta Career Development and Employment has such a program - the Alberta International Marketing Employment Program, however, the program is not well known and quite small.

Therefore we recommend that the Department expand its commitment in this area by increasing the size of the program and more actively promoting its use.

4.7 Program Eligibility Criteria

Several survey respondents questioned the need for particular eligibility requirements for some of Alberta Career Development and Employment's programs. Specifically, they found the two month wait for students from training programs prior to entering the wage subsidy program, and the 24 week unemployment period for people on UIC before eligibility for training programs all created barriers to hiring the most competent employees.

We therefore recommend that the Department examine its eligibility criteria to ensure that they are both effective and necessary.

4.8 Marketing of the Programs Available

Many respondents were not aware of the variety of programs provided by Alberta Career Development and Employment. Moreover, there is a new consulting market niche developing where the consultant identifies and accesses these programs for the firms and then manages any funds the firms receive. This is a fairly strong indication that the Department's programs are not well known or well understood.

We therefore recommend Alberta Career Development and Employment expand the marketing and promotion of their programs so that these programs are more directly accessible by their potential users.

5.0 CONCLUSION

The provincial government can increase the vitality of the Business Services Sector by contracting out particular services to the private

sector rather than developing the capabilities internally. While only 25% of the work done by Business Services Sector firms is for the public sector, increased emphasis on contracting out for required services will expand the markets of these firms, attracting new entrepreneurs and strengthening existing firms.

Secondly, creating a healthier Alberta economy will indirectly strengthen the Business Services Sector and in the long run will provide a stronger market for business service firms.

Alberta has a dynamic and growing Business Services Sector that should be encouraged and strengthened whenever possible. Incorporation of these recommendations by Alberta Career Development and Employment and the other departments and institutions affected would clearly improve a very important sector in Alberta's economy.

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CHAPTER 1.0

INTRODUCTION

1.0 INTRODUCTION

1.1 Background, Scope and Objectives of the Study

Background

The primary mandate of Alberta Career Development and Employment (Alberta CD&E) is to promote the development and improved utilization of Alberta's labour force. As such, it periodically requires detailed information on current market conditions and future trends in individual sectors of the Alberta economy. The business services sector, which includes those firms or individuals that provide services more to other businesses than to the general public, was selected for an in-depth examination for several reasons:

1. The business services sector is the fastest growing sector in the Canadian economy. For example, while the overall level of employment grew by 19.4% in Canada from 1976 to 1985, employment in the Canadian business services sector increased by 67.8%. Moreover while Ontario accounted for the largest absolute increase in the number of people employed in this sector (88,000), Alberta experienced the largest percentage increase over the 10 year period of 97.0%.*

2. Comparative growth statistics by industry sector provided by the Department of Regional Industrial Expansion for the period 1978-1984 shows the strong growth in business services across the country relative to other sectors (see Exhibit 1.1). While it is difficult to reconcile these data

* "An Overview of Employment Growth in the Services to Business Management Sector", The Labour Force, February 1986, Statistics Canada Catalogue 71-001.

Exhibit 1.1

Average Annual Growth Rates
Employment by Sector for
Alberta, Ontario, B.C. and Canada
1978 - 1984

	Alberta %	Ontario %	B.C. %	Canada %
Primary	6.3	0.8	0.7	2.2
Manufacturing	(1.1)	0.1	(2.0	(0.8)
Construction	(5.5)	(0.1)	(1.8)	(1.4)
Wholesale	(0.3)	2.4	(0.6)	1.0
Retail	4.0	2.7	3.4	3.1
Transportation	1.5	0.5	1.1	(0.0)
Communication and Utilities	2.5	1.2	(0.4)	0.7
Finance, Insurance, Real Estate	0.9	2.2	1.9	1.4
Business Services	**4.1**	**4.7**	**4.3**	**4.2**
Food and Accommodation	2.8	2.6	2.3	2.2
Community Services	3.3	3.3	3.3	3.3
Public Administration	2.2	2.4	0.4	1.6
Total All Industries	**2.7**	**2.0**	**1.6**	**1.6**

Source: Department of Regional Industrial Expansion, Service Industries Branch.

Notes: 1. Figures in parentheses indicate a percentage decline in employment.

with the Labour Force data noted above, it nevertheless shows the rapid relative growth in this sector.

3. A healthy business services sector strengthens the other business sectors.

4. The service industries as a whole now employ over 70% of Canada's labour force, as compared to only 40% at the end of World War II - an incredible shift in manpower utilization.

5. With the shift in manpower to the service sector, economic incentives that have historically been used to attract the more capital intensive goods-producing industries to a region such as access roads and low-cost land are less effective for service firms and new policies should be investigated.

6. An assessment of the business services sector would complement previous studies by the Department of the oil and gas, and manufacturing sectors.

7. Approximately 50% of the Career Development and Employment Department's programs are currently targeted to the goods-producing sector and the Department is very interested in identifying if increased support for the service industries is both necessary and feasible.

Thus the Alberta Business Services Industry Study was proposed and co-ordinated by the Labour Market Industry Analysis Branch of Alberta Career Development and Employment. The Terms of Reference for the study were developed with the assistance of two committees, an Advisory Committee comprised of key people in the industries being surveyed and a Technical Committee of key officials in various divisions of Alberta Career Development and Employment and from other Departments that would have a direct

interest in the survey results. (Committee members are presented in Appendix A). In the Fall of 1986, The DPA Group Inc. was commissioned, after a competitive bid process, to develop, administer and analyse the results of a survey of Alberta's business services sector.

Scope

The purpose of the study was to examine current and future labour market conditions in the business services sector and subsectors. This sector can be defined as major group 77 under the Revised Standard Industrial Classification System (SIC) and includes the following eight subsectors: employment and temporary help agencies, computer related firms, accounting companies, advertising agencies, architectural and engineering firms, law firms (but excluding notaries), management consultants and general services companies. (More detailed definitions of the industries included in the business services sector are provided in Chapter 4).

This sector is characterized by a large number of very small firms in each industry and their rapid entry into and exit from their industries.

For the purposes of this study, establishments or individuals providing business services on either a full-time or part-time basis were to be included in the study.

Objectives

The specific objectives of the study as they evolved from the initial Terms of Reference were five-fold:

1. To determine current, historical and seasonal employment patterns by subsector;

2. To assess the current and anticipated future demand by occupation or critical skill areas for the sector and subsectors;

3. To assess future employment growth and decline by subsector and, if possible by occupation or critical skill area based on a series of focus groups and personal interviews involving the suppliers and consumers of business services;

4. To determine future training requirements for the sector and subsectors; and

5. To explore measures to enhance employment conditions within the sector and subsectors based on industry views.

In the next sector we will present the general approach used in the study to satisfy these objectives.

1.2 General Approach and Methodology

The primary study approach was a telephone survey of randomly selected firms in each of the eight subsectors or industry groups. A standard questionnaire was developed covering historical employment levels, years of operation in Alberta, full-time versus part-time employment, seasonal employment fluctuations, types of services offered, and expected employment change over the next 18 months and three years by either occupation or type of service offered. In addition there was a series of open-ended questions on areas of expected industry growth, areas with expected shortages in skilled manpower, types of training required in the growth areas, factors that make it difficult for the firm to provide training, training initiatives the provincial government might provide and other steps the government could take to enhance employment in the firm's particular industry. The wording of the questionnaire was

modified for each of the subsectors to make the questions more relevant to the respondent. For example, the questions on types of services offered were tailored to fit the industries in each subsector. Clarifying examples were also subsector specific.

A copy of the questionnaire together with an introductory letter from the Deputy Minister of Alberta Career Development and Employment was mailed to each firm in the sample to introduce the study and allow the respondent time to gather the necessary information and to reflect on the opened-ended questions. Where possible, the respondent to the survey was an owner or partner in the firm although in the case of the larger firms we often spoke to the general manager or the personnel manager.

The telephone interviews were supplemented by a total of 53 personal interviews with key industry participants in each subsector. Also, focus groups were conducted in two areas, architecture and computer services, where this form of information collection was felt to be particularly productive. The interview process was also supplemented by an extensive review of existing literature.

The sample of firms to be interviewed was drawn from the Business Register maintained by Statistics Canada. As the data file containing the names and addresses of the population of firms was based in part on confidential taxation files maintained by Statistics Canada, this file could only be used by government personnel and not third party consultants. The study thus became a co-operative effort by the client, the Labour Market Industry Analysis Branch within Alberta Career Development and Employment, and the consultant, The DPA Group Inc. The consultant took the lead role in the survey and questionnaire design, conducted the personal interviews and focus groups, and processed and analysed the results of the survey. Meanwhile the client drew the sample of firms and

conducted all of the telephone interviews. Initially the client used internal staff to do the interviews but later subcontracted the work to Statistics Canada when budgetary restrictions necessitated cutbacks in their own staff.

The process of drawing the sample and preparing for the telephone interviews proved to be a major undertaking. The population of firms was divided into two groups: those with 20 or more employees and those with less than 20 employees, according to information in the Business Register. The names and addresses of all 674 firms with more than 20 employees plus over 1600 smaller firms were pulled from the Register to form the sampling data in this survey. Subsequently another 500 names were drawn in those subsectors where a particularly high proportion of firms had to be deleted from the database.

Considerable file cleaning was required before interviewing could begin, the details of which are discussed in Chapter 2.0. In all, 1 114 interviews were completed. In addition, there were another 86 companies that were subsidiaries of or otherwise related to other companies in the sample.

The data were entered and verified; checks for consistency and for more than one questionnaire per company were made. The data were then analysed and the results are presented in the next three chapters. The qualitative or open-ended responses were collected into a single file for each subsector and frequency distributions were compiled for each comment type.

The personal interviewing and focus groups covered the same range of questions as the qualitative questions in the telephone survey but provided the opportunity to discuss each question in more depth and provide more understanding of the new directions and needs of each industry group.

1.3 Structure of the Report

The definition of the population of firms is critically important in this study and is the focus of Chapter 2.0. First, the distribution of firms by size and subsector according to the Business Register is presented. It is the basis on which the sampling frame was defined. Once the sample of firms was drawn, several problems were identified including companies being struck from the Corporate Registry maintained by Consumer and Corporate Affairs, others were in the wrong SIC group or were no longer in business. In addition, accountants and lawyers often incorporated themselves as professional corporations which then become part of a larger partnership. Both the professional corporations and the partnerships should be included in the study as active companies but adjustments must be made to avoid double-counting when trying to estimate total employment.

The results of these adjustments to the sample and the limitations and constraints they impose on the study are also discussed in Chapter 2.0.

The Business Services sector as a whole is discussed in Chapter 3.0. Here estimates of the number of firms and total employment in the sector are presented and discussed. In addition, information that is common to all subsectors such as employment stability, expectations of future, the locational distribution of firms, and their client base is discussed.

The individual subsectors are considered in detail in Chapter 4.0. The results of the quantitative portion are integrated with the responses to the open-ended questions, and the results of the personal interviews and focus groups to give an understanding of employment levels, growth areas, training needs and areas of possible government assistance.

Chapter 5.0 concludes the report, drawing together consistent themes across subsectors into a series of conclusions, suggestions and recommendations.

The appendices supplement the material in the body of the report identifying the participants on the Advisory and Technical Committees, and samples of the materials sent to each respondent.

CHAPTER 2.0

THE POPULATION OF BUSINESS SERVICES SECTOR FIRMS AND THE INFORMATION GATHERING PROCESS

2.0 THE POPULATION OF BUSINESS SERVICES SECTOR FIRMS AND THE INFORMATION GATHERING PROCESS

2.1 The Sampling Population

As mentioned in Section 1.2, the Statistics Canada Business Register was used to define the population of Alberta-based firms in the business services sector. The Register contains business entities which file with Revenue Canada, that is, they have a payroll deduction account. These business entities may be companies, unincorporated businesses or the equivalent in the non-commercial sector, such as charitable organizations. The Register would therefore contain owner-operated businesses but not those branch offices where the head office is located elsewhere in Canada. Nor will the Register contain self employed business people unless they formalize the owner-employee relationship through automatic payroll deductions.

The size distribution of firms by industry group (or subsector) is given in Exhibit 2.1. SIC Code 775, Architects, Engineers and Other Scientific and Technical Services is the largest industry grouping with 29% of the overall population of 13,167 firms. Next in line are Management Consultants, Accountants and Lawyers with 20%, 15% and 14% respectively. Of particular interest is the relatively small size of most of the firms. Seventy-four percent (9,792) have less than five employees and ninety-five percent have less than twenty employees according to Statistics Canada records.

2.2 Sampling Procedures

An overall questionnaire was developed for the business services sector and then modified where necessary for each of the eight industry groupings. A questionnaire and covering letter from the Deputy Minister of Alberta Career Development and Employment was

Exhibit 2.1

Size Distribution of Firms by Industry Group
(Alberta Establishments)

Selection Code	Name	Number of Employees										Total Sub Sector
		Unknown*	0-4	5-9	10-19	20-49	50-99	100-199	200-499	500-999	100+	
771	Empl. Agen.	9	121	41	40	30	16	13	2	1	0	273
772	Computing	31	438	78	41	35	11	3	1	0	0	638
773	Accounting	62	1516	198	79	35	16	4	0	0	0	1910
774	Advertising	23	273	42	26	7	5	0	0	0	0	376
775	Arch. and Engineering	131	2783	394	266	147	55	30	5	1	1	3813
776	Legal	33	1352	260	126	77	21	13	1	0	0	1883
777	Mgmt. Consulting	120	2121	219	92	62	7	6	1	0	0	2628
779	General Bus. Services	68	1188	204	109	56	16	3	1	1	0	1646
Total for Size Category		477	9792	1436	779	449	147	72	11	3	1	13167

Source: Statistics Canada Business Register 1986.

* No information is available to Statistics Canada to classify the business into an employment size range. Experience has shown that 90% of the businesses will fall within the range of 1-19 employees.

mailed to each potential respondent. (Sample questionnaires are included in Appendix B.)

The interviewers were provided with an Interviewer Guide prepared by the consultant and were trained jointly by the consultant and the client. Supervision of the interviewing process and quality control was handled by the client as well.

Approximately one week after the questionnaires were mailed to the firms, the telephone interviews were conducted. In most cases the respondent was the President or a Partner in the firm, but if he or she was not available, the general manager or the personnel manager was asked to respond to the questionnaire. Interviewers attempted at least three contacts with every firm and most firms were very cooperative - refusals were less than one-tenth of the number of people willing to participate in the survey.

Interviewer completion statistics were monitored in terms of when contact was made or attempted, refusals, unable to contact after 3 attempts, wrong SIC Code, no longer in business, and completions. This information was recorded on the master file of firms in the sample and the completed questionnaires were then sent to the consultant for processing and analysis.

2.3 The Sampling Frame and Outcomes

It was decided to stratify the population into larger and smaller firms with the former being twenty or more employees. Further the names of all larger firms were included in the survey database and a sufficient number of the smaller firms so as to give a reasonably sized sample in each subsector. The initial target for completed interviews was 1600 or approximately 200 interviews per subsector. The sampling frame is given in Exhibit 2.2.

Exhibit 2.2

Alberta Business Services Sector Survey
Sampling Frame

Industry Code	Industry Group	Total No. of Firms	Firms With 20 or More Employees*	Actual Number Selected	Firms With Less Than 20 Employees	Selection Rule for Smaller Firms**	Actual No. of Smaller Firms Selected
771	Employ. Agen.	273	62	62	211	every 2nd	103
772	Computer	638	50	50	588	every 3rd	189
773	Accounting	1,910	55	47	1,855	every 7th	270
774	Advertising	376	12	12	364	2 out of 3	237
775	Archt. Engineers	3,813	239	239	3,574	every 18th	196
776	Legal	1,883	112	111	1,771	every 10th	184
777	Mgmt. Consulting	2,628	76	76	2,552	every 10th	253
779	General Business Services	1,646	77	77	1,569	every 7th	225
		13,167	683	674	12,484		1657

* Expected number of firms with 20 or more employees as per Business Register summary data. All of these large firms were included in the survey as per next column. The difference between the two columns was not investigated.

** The decision rule was developed to provide an average 200 completed interviews per subsector. Subsequently more firms were selected in all subsectors 771, 772, 773, 776 and 777 to expand the number of completed interviews.

In the final analysis, 1200 interviews were completed giving 1114 usable responses (the remainder were associated companies - see discussion below). The actual number of completions fell short of the initial target primarily because of the quality of the initial listing of firms drawn from the Business Register and the cost of tracking down the active firms.

As the Business Register is based on taxation files, the Register can only be used by government employees, not third party consultants. Thus the Labour Market Industry Analysis Branch co-ordinated the drawing of the sample and the conducting of the interviews. Because of the provincial-wide budget restraints imposed in February, 1987, the Department subcontracted some of the interviewing to Statistics Canada.

The sample drawn of firms to be interviewed required some research and editing before the survey could begin.

The complexity of the questionnaire suggested the use of telephone interviews as opposed to a self-completion mail-back procedure. Thus telephone numbers had to be obtained for all the firms from Alberta Government Telephones (AGT) records. Where there was no telephone number available for the company, a follow-up search was made in Consumer and Corporate Affairs records for the names and addresses of Directors and then telephone numbers sought for these people.

As Exhibit 2.2 shows a total of 2,331 firms (674 + 1,657) were initially selected to be included in the study. However 659 names had to be deleted from the sample (28%) because there was no telephone number available for either the company or its Directors, the company was being struck from Alberta Consumer and Corporate Affairs records or there was no listing of the firm at Consumer and Corporate Affairs. Another 109 firms were found during inter-

viewing to be incorrectly coded into SIC Code 77, Business Services, and 55 firms were no longer in business. Thus a total of 823 firms or 35% of the original sample were omitted. Most severely affected were the smaller firms in the management consulting, employment agencies and temporary help, and general services sectors (see Exhibit 2.3).

Moreover, there were two additional serious problems with the data set drawn from the Business Register. First, many of the firms were miscoded in terms of size. For example, of the 371 larger firms interviewed, 127 (or 34.2%) were found to have less than twenty employees and 41 of the 829 smaller firms interviewed (or 5.0%) had more than twenty employees (several had more than 100 - including one with 699 employees).

Second, a common phenomena particularly in the accounting and legal subsectors, is the professional corporation. Individuals incorporate themselves as corporations and then join these corporations in a partnership. Both the professional corporation and the partnership are legitimate corporate entities and so should be included in the Business Register. However for employment purposes, inclusion of both would create a problem of double counting. There were 86 instances in the 1,200 completed interviews of professional corporations which were part of larger partnerships that were also part of the survey (and 36 of these professional corporations were incorrectly classified as larger firms). For the purposes of this study, all employment in these cases was allocated to the partnership and the professional corporations were assumed to have zero employees.

All these factors led to revised estimates of the population of firms in the business services sector as will be shown in the next section. The overall effect of these changes was to reduce the estimated population of firms from 13,167 to 8,013, a drop of 39%.

Exhibit 2.3

Sampling Statistics

	771 Empl. Agencies Temporary Help		772 Computer		773 Accounting		774 Advertising		775 Archit. & Eng.		776 Legal		777 Mgmt. Consulting		779 General Services		Total		
	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Large	Small	Total
Pop[n] Business Register	62	211	50	588	55	1855	12	364	239	3574	112	1771	76	2552	77	1569	683	12484	13167
Initial Sample																			
Initial Sample Drawn	62	103	50	189	47	270	12	237	239	196	111	184	76	253	77	225	674	1657	2331
Deletions (1)	27	53	6	76	5	86	3	103	49	81	6	28	34	140	21	105	151	672	823
Firms Remaining As % of Initial Sample	56.5	48.5	88	59.8	89.4	68.2	75	56.4	79.5	58.9	94.6	84.8	55.3	44.7	72.7	52.9	77.6	59.4	65
Numbered Companies	2	5	0	1	0	2	0	7	1	3	2	4	3	14	1	7	9	43	52
Completed	29	36	23	75	35	132	8	93	150	66	63	126	12	26	46	71	366	620	987
Refused	0	0	4	8	5	9	0	5	5	15	12	9	1	17	3	4	30	67	97
Total Sample																			
Completed (2) and Processed	29	65	21	156	45	151	7	97	146	69	69	134	11	85	43	72	371	829	1200
Part of Another Company	1	0	0	0	12	19	0	0	7	3	16	22	0	4	0	2	36	50	86
Incorrect Size Code	7	4	8	5	16	9	0	4	51	6	20	9	7	1	18	3	127	41	168
Revised Sample Sizes	25	65	18	159	26	141	11	93	94	111	42	123	5	87	28	85	249	865	1114

NOTES:

1) Deletions Include

- o Firms included in 77 - Business Services that should be elsewhere
- o Firms no longer in business
- o No phone number and company has been or is being struck by Consumer and Corporate Affairs (CCA)
- o No phone number and no listing at CCA
- o No phone number for company or principal Directors.

2) Second sample drawn for all sectors except Advertising (774), Architects and Engineers (775) and General Services (779). In some cases the number of interviews completed in the initial sample exceeds the total completed and processed because some had to be deleted at the processing stage because of incomplete data or discovery of duplicate listings.

(In addition, it was decided not to survey any of the 52 numbered companies in the sample but to still consider them as active firms.) The adjustment process is available from the Department on request.

The wide discrepancy between the number of firms projected by the Business Register and the revised estimate of firms is cause for considerable concern. Estimates of the total employment in each industry grouping are more sensitive to the projected number of firms by industry grouping and size than to the variability in employment levels within the sampled firms.

2.4 Data Limitations and Constraints

The key estimates in this study are the employment figures for each industry group within the two size classifications. There are two types of errors possible in estimates of this kind based on a sample survey: sampling and non-sampling. Sampling errors occur because observations are made only on a sample rather than the entire population of firms. Estimates based on a sample will differ from the figures that would have been obtained from a complete census even if the same questionnaires, instructions, interviewers and processing techniques are used. The effects of this type of error can be estimated and confidence limits around the final figures generated.

A particular problem here is the weighting given to the "outliers". For example in General Business Services (779), the Business Register identifies five firms as having more than 100 employees and only one of these having more than 500 employees. Yet of the firms sampled there were eight firms and two firms with more than 100 and 500 employees respectively. In a regularly repeated survey such as Statistics Canada's monthly report on Employment, Earnings and Hours (72-002) such outliers can be

identified and provision made for the weighting given these observations. In this business services survey, if we knew that these firms were the only ones employing more than 100 employees, the large firm classification could be further stratified so that the average firm size for the unsampled firms is based on the sampled firms with less than 100 employees. This would lower the estimate of overall employment in the subsector considerably. Unfortunately in a one-time survey such as this and using a database that requires as many adjustments as the Business Register does, one cannot make the assumption that all very large firms have been included in the sample. Thus the outlier problem might be causing an upward bias in the employment estimates presented but certainly widens any confidence interval.

A second sampling problem is created because of the short time frame over which the study was conducted. Very small firms will be more difficult to contact because the employee(s) may be out of the office doing contract work whereas larger companies will tend to have administration staff available to answer the telephone at all times. Thus very small firms are likely to be over represented in the "unable to contact" category but under-represented in the completed interviews. This will cause an overestimation of average firm size.

However, in this study, the more serious type of error is the nonsampling error. These are errors that are not related to the sampling itself and include non-response bias, coverage and classification errors, differences in interpretation of the questions, incorrect information from respondents, and errors in recording, coding or processing. The non-sampling type of error can be controlled to some extent by carefully designing and pre-testing the questionnaires, editing the data and carefully controlling the processing operations. In this particular study, the quality of

the initial database of firms is a critical source of non-sampling error, in terms of both coverage and classification.

The Business Register is a listing of firms that apply for a payroll deduction number. It is simply a catalogue of all firms that at the time of application had, or expected within the next six months to have, one or more employees. Thus the Business Register should be very current in terms of new firms. However, deletions for reasons such as bankruptcy, merger or takeover do not have the same priority as additions and the Register thus overstates the number of firms actually in business. A random sampling procedure should identify the proportion of inactive firms. However, when the inaccuracies in terms of the number of firms are combined with misclassifications and other complexities, the accurate estimation of total employment becomes more difficult.

For example, the misclassification of firms by size has important implications in terms of the estimates of the number of firms in each size category. If there are a large number of small firms in any industry subsector, a few large firms found in the small firm classification translates into a large increase in the expected number of large firms as the correction factor is the ratio of the total number of firms in the classification to the sample size. This same factor is used to correct for duplicate listings including subsidiary companies. The professional corporation/ partnership relationship requires a different correction factor. When a professional firm was contacted and interviewed, the information obtained was with respect to the larger partnership. Thus a law firm with forty partners incorporated as professional corporations would have forty-one opportunities to be included in the sample. This effectively weights the sampling procedure by firm size and it is more appropriate to assume that any large partnerships in the small firm classifications which have been identified through its linkage to a professional corporation have been identi-

fied. In this case the ratio of total firms to sample size should not be used when correcting for misclassified firms.

The Business Register does not include self employed people and as such the survey will underestimate the size of the overall sector but this shortcoming is inherent in all studies based on payroll deductions.

2.5 Complementary Data Gathering - Personal Interviews and Focus Groups

The telephone survey approach provides limited scope for an in-depth assessment of industry trends and perspectives.

To complement and expand upon industry input received through the telephone survey, a number of personal interviews and focus groups were conducted in Calgary and Edmonton. The numbers of interviews and focus groups conducted are summarized in Exhibit 2.4.

Exhibit 2.4

Personal Interviews and Focus Groups

	Industry Group								
	Employment/ Temp Help	Computer & Related Services	Accounting & Bookkeeping	Advertising	Architectural Engineering & Other Sc. & Techn.	Legal Services	Management Consulting	Other Business Services	
	771	772	773	774	775	776	777	779	Total
Interviews	14	6	3	10	8	4	4	4	53
Focus Groups	no	yes	no	no	yes	no	no	no	

The purposes of these activities were to:

i) identify and discuss key issues and trends affecting the industry group.

ii) identify specific skill areas in excess supply or demand.

iii) identify suggested initiatives by which industry and government could alleviate supply/demand imbalances.

The interviews and focus groups were intended to add qualitative depth rather than quantitative detail. The results of these sessions have been incorporated in the sections of each industry profile (Sections 4.1 to 4.8) dealing with trends, issues and initiatives.

Due to project constraints and the number of firms within the industry groups under study, it was not possible to have exhaustive coverage of these industries. Attempts were made to obtain input from representatives of industry associations and from a mix of large and small firms representative of delineable subindustry groupings. Furthermore, an attempt was made to obtain the input of key senior informants who have a broad historical perspective on their respective Alberta industry. This input, however, must be regarded as a sampling of knowledge and opinion rather than the consensus of an industry group in the province.

CHAPTER 3.0

THE BUSINESS SERVICES SECTOR AS A WHOLE

3.0 THE BUSINESS SERVICES SECTOR AS A WHOLE

Estimation of the number of firms and the number of people employed in the business services sector is complicated by the sectors's inherent volatility. Low capital requirements and few organizational constraints make it relatively easy to create or dissolve firms. (In some subsectors such as legal services, architecture and some areas of accounting, professional qualifications are required and thus restricts overall access to the industry but does not prohibit people with these qualifications from creating companies or partnerships with relative ease).

Second, both businesses in general and all levels of government have ongoing requirements for the types of services offered by this sector and can either contract this work out to business services firms or can hire individuals with the necessary expertise to provide the services internally. This creates what might be called an invisible business service sector within the government departments and larger corporations. In times of economic change such as the recession in the last few years, these organizations will reassess their decisions to access the required services either internally or externally. This creates a substantial flow of people between the business services sector and the "invisible" business services sector within these larger organizations.

Third, a person may set himself or herself up as a self-employed practitioner on either a full-time or part-time basis and yet not be considered an organization within the business services sector because they may not have salaried staff and thus not be listed in the Business Register. With the advent of micro-computers, people are also finding it easier to operate their business out of their homes and thus not require office space. All these factors make the task of identifying the number of firms and people in the business services sector more difficult. Nonetheless, the survey should provide reasonably reliable estimates of the activity in the identifiable business services sector.

3.1 Estimated Number of Firms

Based on 1200 completed interviews, the number of firms is estimated to be 8013. The Business Register which served as the initial source of companies shows 13,167 firms as of December, 1986. The large variation is due to the fact that although additions must be quickly made to the Register for purposes of payroll deductions, deletions cannot be made until the government is sure that the company will no longer be submitting payroll deductions for income tax purposes for its employees. Thus the Register contains a high proportion of companies that are no longer active. In addition, these were a large number of firms incorrectly coded to this sector, particularly in the Other Services category (779). The required adjustments are reflected in the estimates of 8013 firms.

A second estimate is 9637 firms as of December, 1984. This figure is supplied by the Department of Regional Industrial Expansion (DRIE) and is based on information maintained by the Business Microdata Integration and Analysis unit of Statistics Canada. (Exhibit 3.1). The two estimates are compared on a subsector by subsector basis in Exhibit 3.2. The major differences in the two estimates are the number of smaller firms (less than 20 employees) in the Architectural, Engineering and Other Technical and Scientific Services (SIC 775) and Other Business Services (SIC Code 779). In only the Accounting (773) and Legal Services (776) areas do the estimates of this survey exceed the DRIE estimates and these were the two subsectors where the professional corporation was a frequently used organizational structure. We hypothesize that the differences in the number of firms is due more to differences in the sampling procedures in the two surveys rather than reflecting a substantial decrease in the number of companies operating in Alberta over the past two years. However, with a sample size of over 1200 firms, the 95% confidence interval around the estimate of 8013 is +/- 300 firms.

Exhibit 3.1

Alternative Estimates of Employment In
Alberta's Business Services Sector

Survey	Date	Firms	Employment
This Survey	Dec. 1986	8013	76,867
Labour Force	Dec. 1986	-	62,000 (1)
DRIE	1984	9637	54,326 (2)
DRIE	1978	5678	42,604 (2)

(1) Based on monthly survey of labour force involving all firms with more than one hundred employees and a sample of the smaller firms.

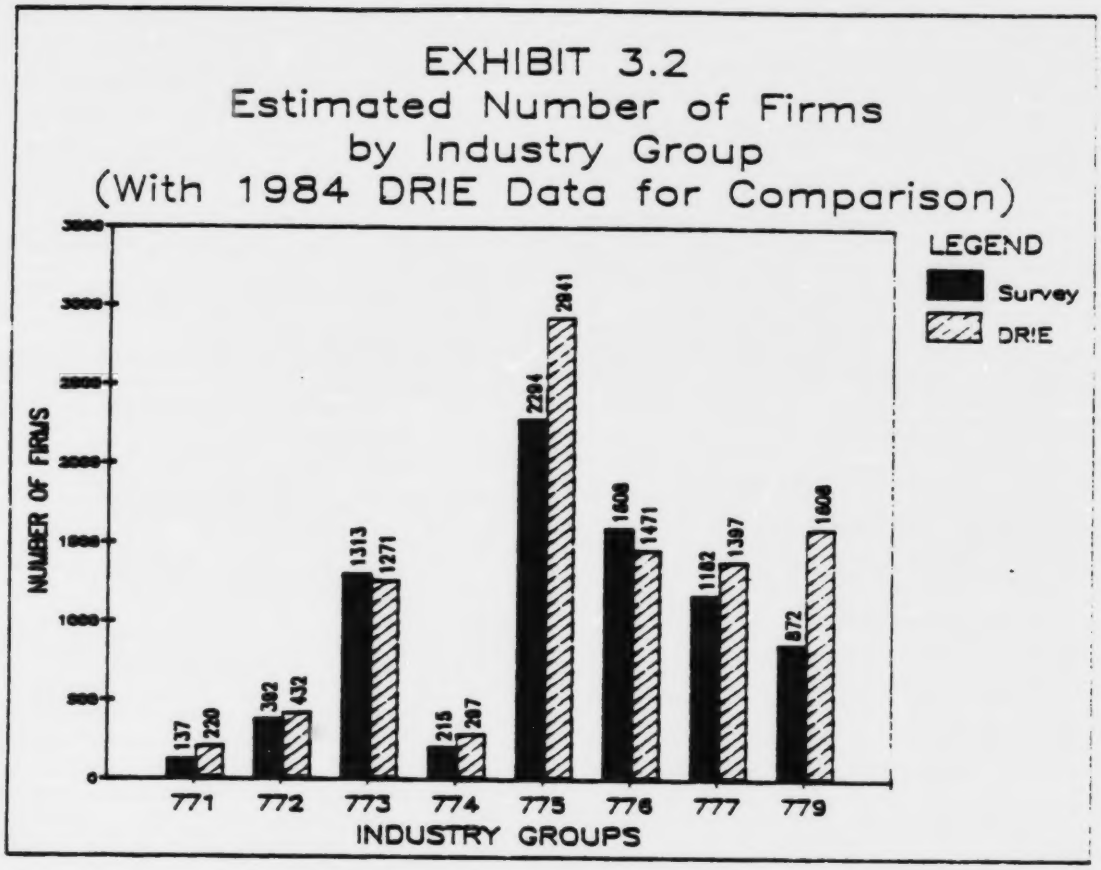
(2) Full year equivalents calculated using total payroll as per payroll deductions divided by an average salary figure.

The information is classified according to the 1970 SIC Codes where Business Services are under Codes 850-869. Architectural Engineering and Other Scientific and Technical Services (775) combines Architects (863-1970 SIC) and Engineering and Scientific Services (864). Other Business Services (779) combines Security and Investigation Services (855), Miscellaneous Services to Business Management (869) and the fund raising organizations previously in Insurance and Real Estate Agencies (part of 737 in 1970). Also couriers were moved from Miscellaneous Services to Postal and Courier Services Industries (484 in 1980).

Sources

Labour Force Survey, Statistics Canada

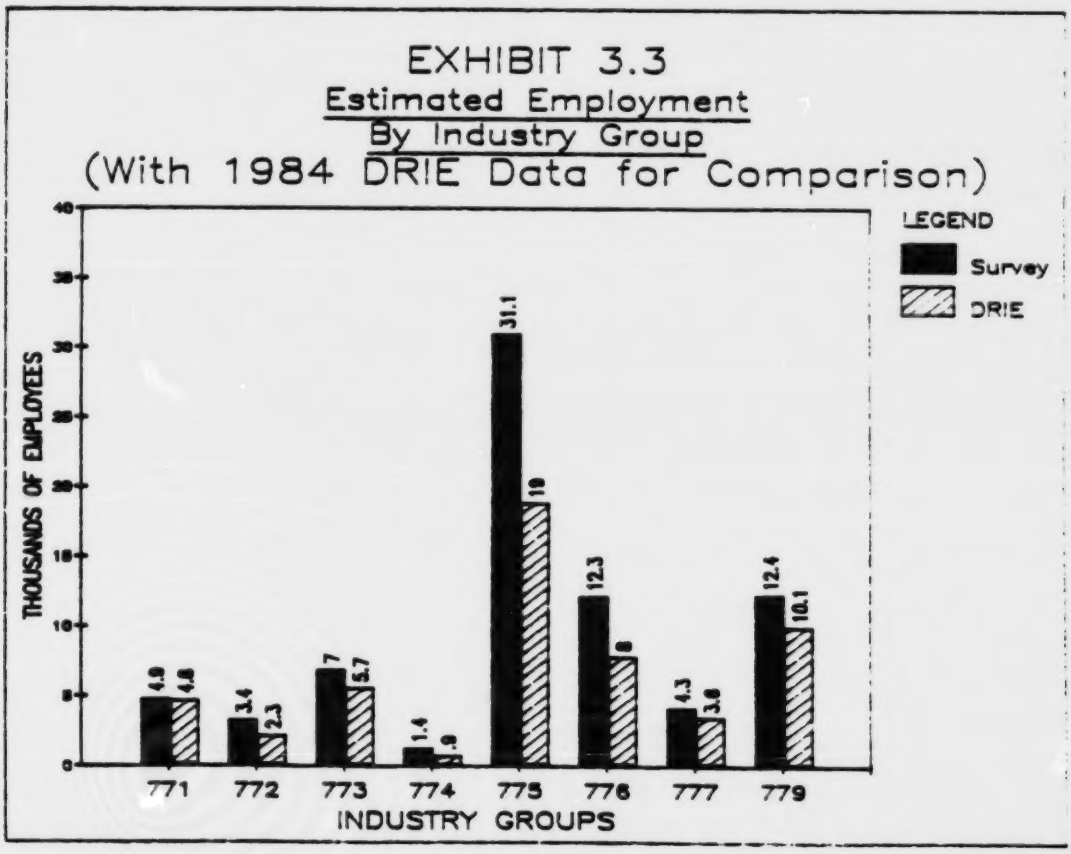
DRIE - Compiled at DRIE's request by Business Microdata Integration and Analysis Unit, Statistics Canada



3.2 Estimated Employment

The number of people employed in the Business Services Sector is estimated to be 76,867. This figure is higher than estimates provided by other recent studies as shown in Exhibit 3.1. One reason for the difference in the estimates is the other studies are all in terms of Full Year Equivalents (FYE) rather than the number of people employed. With approximately fourteen percent of the employees in this sample working part-time, the Full Year Equivalent to the 76,867 persons estimate would be 68,000 to 72,000 person years, assuming the part-time staff work between 15 and 20 hours per week on average.

The employment estimates by subsector are shown in Exhibit 3.3 with the DRIE data again used as a point of comparison. In every subsector, the estimates from this survey exceed the 1984 DRIE FYE estimates and the largest differences are in Architects and Engineering (775), Legal (776) and Other Services (779). One reason for the higher estimate in Industry Group 775 is the provincial government's oilwell drilling support program which expired December 31, 1986. This caused a sharp increase in the survey work being done for the petroleum industry in the last quarter of 1986, particularly in December. It was not unusual to find survey crews on a full time basis for the last one or two months of the year. Since this survey used December 1986 employment figures, this survey will produce higher estimates of subsector employment than will a survey based on yearly payroll figures.



However, the main reason for the variation is likely the apparent underestimation of the number of people employed in the larger firms within each subsector in the DRIE data. For example, 12 computer services firms with 100-499 employees have a total employment of only 464 FYE person years or an average of only 39 person years per firm. The 15 Engineering and Other Scientific and Technical Services firms in the 500 plus employees category have an average firm size of 150 person years. In the Other or General Business Services Sector (779), the DRIE figures show 7 security and investigation firms with 500 or more employees yet a total employment of only 724 FYE persons. This latter figure implies each person works on average, less than eight hours per week.

Thus, while the DRIE data is the best data available for comparison purposes on a subsector basis, it appears that the numbers generated by this Business Microdata file underestimate the actual number of people employed in the business services industry. We therefore have reasonable confidence in the numbers produced in this survey while recognizing the data limitations and contraints discussed in the previous chapter.

3.3 Employment Stability and Expected Growth

Exhibit 3.4 shows the percentage of firms in the survey in each industry group which declined in size, remained the same or grew. Of particular interest is the high proportion of companies in the Architectural, Engineering and Other Scientific and Technical Services industry group (775) that are smaller in 1986 than they were in 1984 (44%). Also Computer Services (772) had a higher proportion of firms showing moderate growth, a statistic that is consistent with the general impression of the industry. Third, the industry group that was most resilient to the recession in the Alberta economy in terms of the proportion of firms that declined in size was Advertising (774) at nine percent.

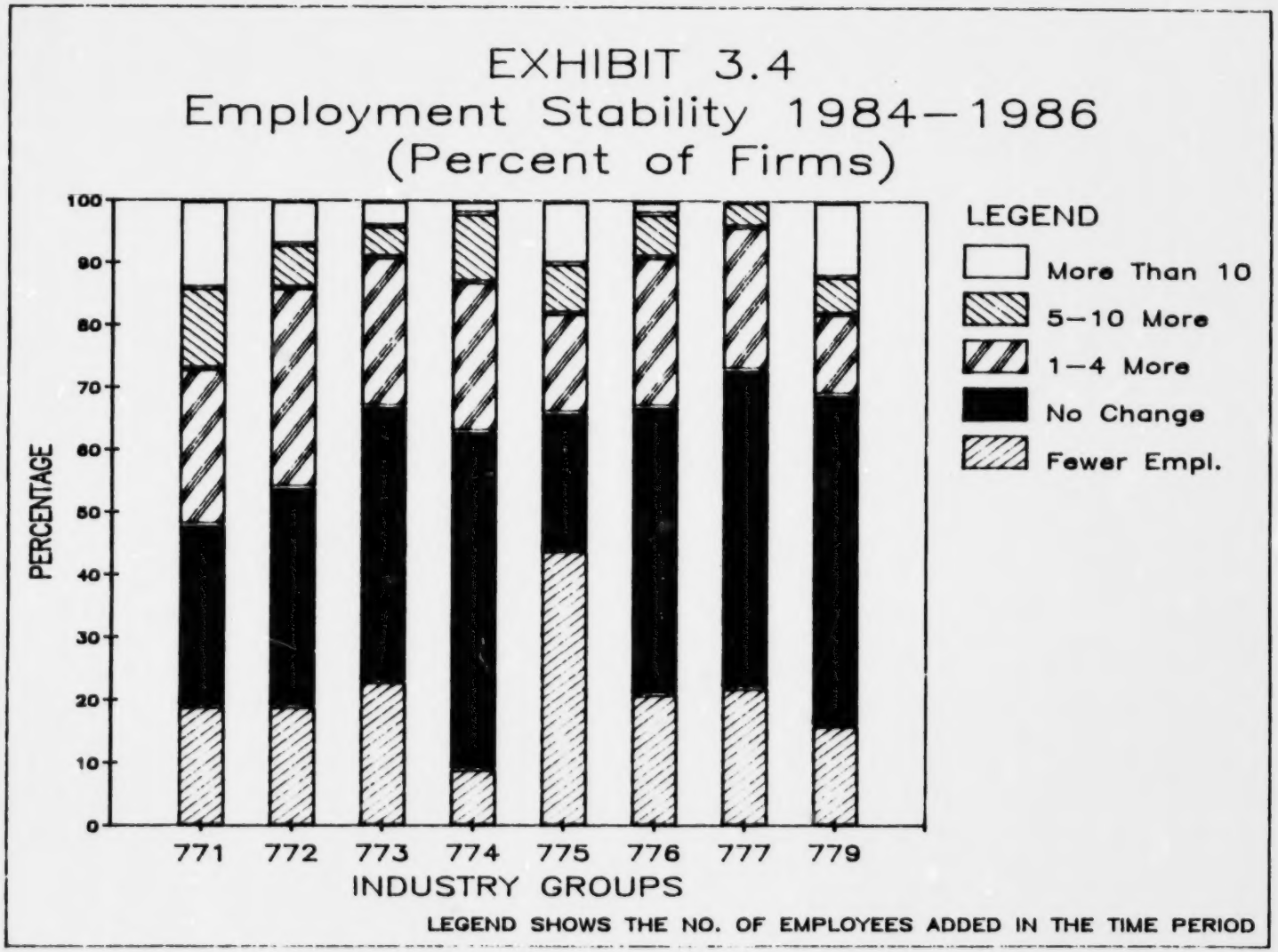


EXHIBIT 3.4
Employment Stability 1984–1986
(Percent of Firms)
PERCENTAGE
100
90
80
70
60
50
40
30
20
10
0
771
772
773
774
775
776
777
779
INDUSTRY GROUPS
LEGEND
More Than 10
5–10 More
1–4 More
No Change
Fewer Empl.
LEGEND SHOWS THE NO. OF EMPLOYEES ADDED IN THE TIME PERIOD

Both subsectors 771 (Temporary Help and Employment Agencies) and 775 had a higher percentage of firms that grew by five or more employees over the two year period. However, these increases were more the product of the sampling design than reflecting actual changes in the industry. The Architects and Engineers subsector had a much higher proportion of large firms in the sample (see Exhibit 2.3) and as a result the five or more employees added represented a smaller percentage of the overall employment in the company. Included in the employment figures for the Temporary Help and Employment Agencies are both the permanent staff and the registrants for temporary placement. Thus large growth statistics show more registrants are applying for assistance rather than more permanent staff being added.

Exhibit 3.4 presents what has happened from December 1984 to December 1986 while Exhibit 3.5 summarizes what the respondents expect will happen in the near future. It is interesting to note the relative consistency of expectations across the industry groups.

3.4 Other Comparative Statistics Across Industry Groups

Edmonton is most strongly represented in the Legal (776), Management Consulting (777) and General Business Services (779) areas while Calgary is most strongly represented in the Architectural, Engineering, and Other Scientific and Technical Services (775) and Computer Services (772). The highest proportion of business handled in the other cities and towns in the province is the Accounting subsector (Exhibit 3.6).

Finally, Exhibit 3.7 shows the relative proportion of activity by client in each of the subsectors. In all sectors but Legal Services, other businesses constituted more than 70% of business activity.

EXHIBIT 3.5

Expected Employment Change Over Next 18 Months

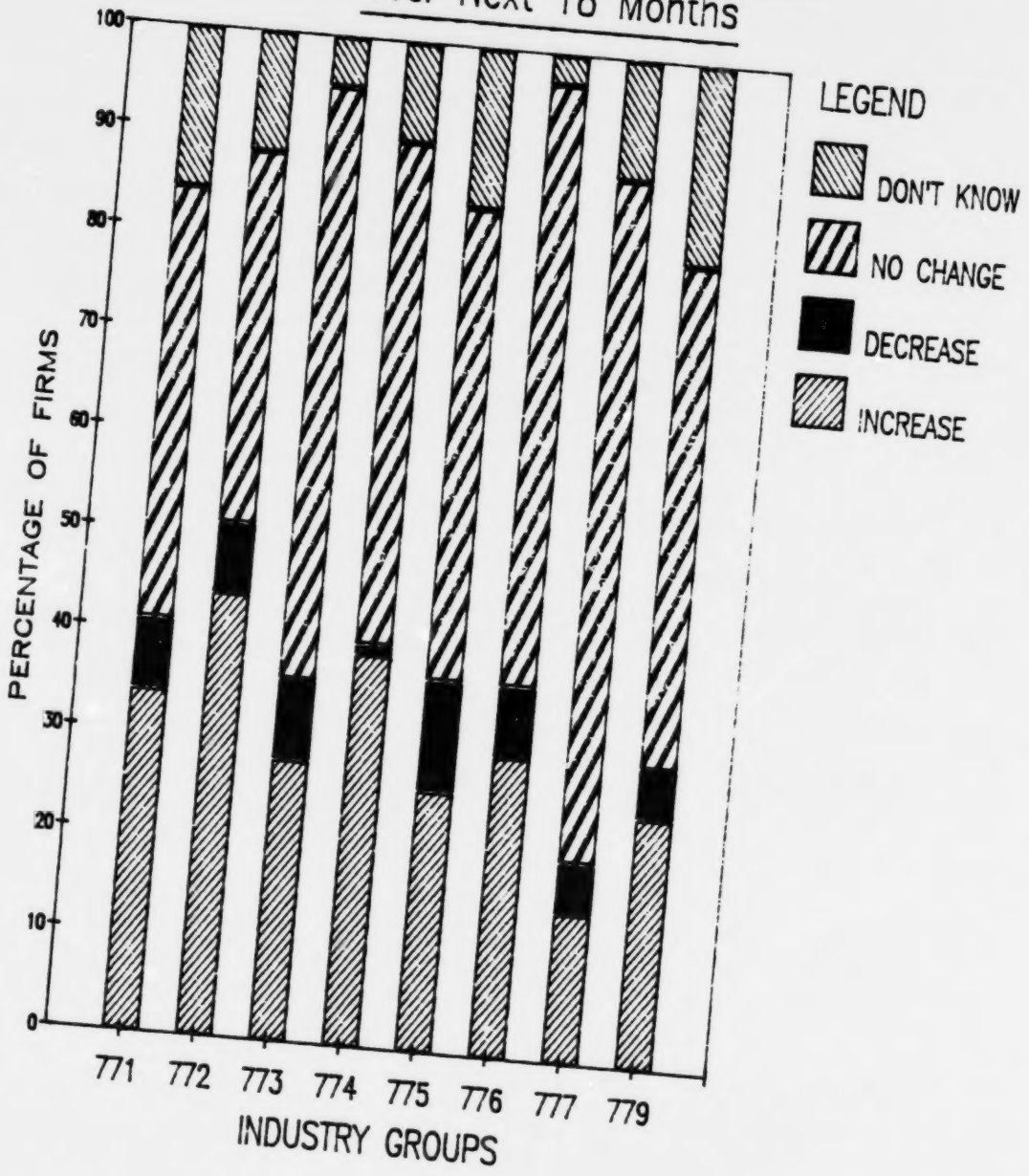


EXHIBIT 3.6
Geographic Distribution Of Sampled Firms (%)

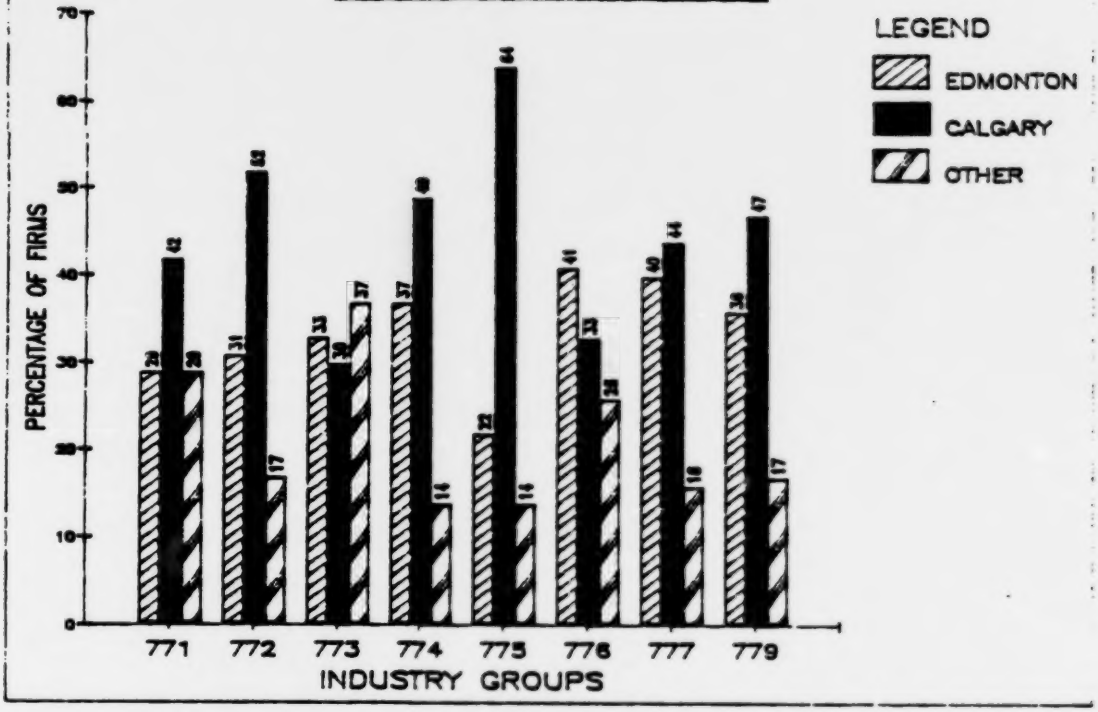
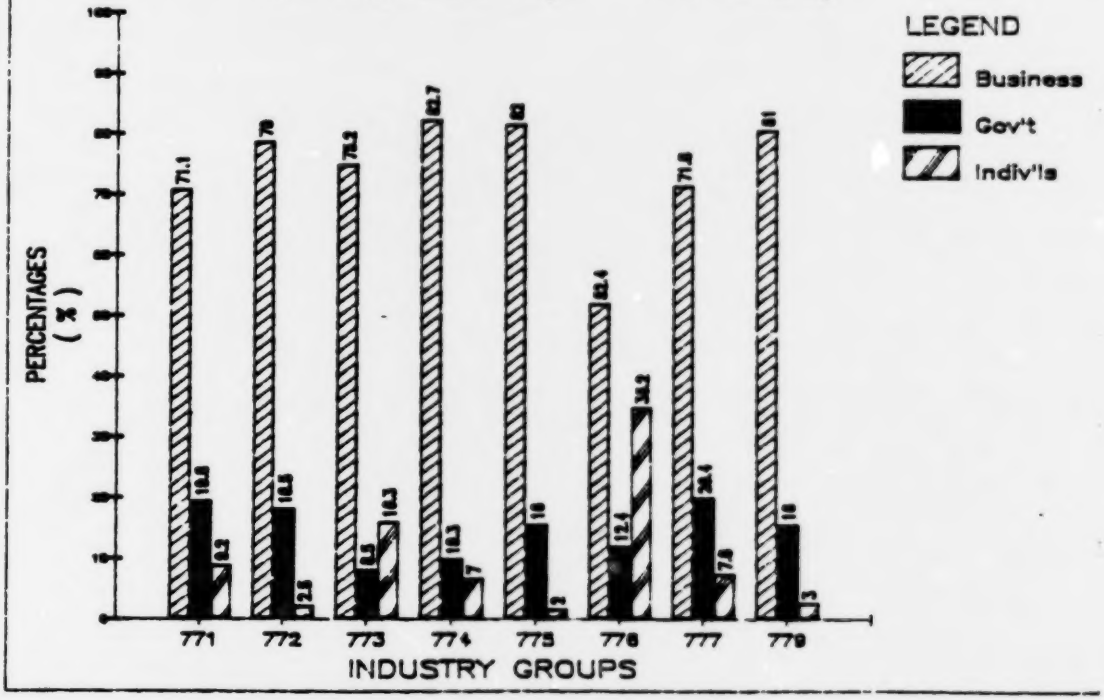


EXHIBIT 3.7
Client Mix by Industry Group (Weighted by Firm Size)



The purpose of this Chapter was to present an overview of the whole business services sector and present some comparative information on the industry groups within the sector. The industry groups will be discussed individually in Chapter 4.0. Industry trends, likely growth areas, areas of expected manpower shortages and training requirements will also be examined.

CHAPTER 4.0

INDUSTRY PROFILES

4.1 Temporary Help and Employment Agencies (771)

4.0 INDUSTRY PROFILES

4.1 Temporary Help and Employment Agencies (771)

The temporary help and employment agencies industry is defined to include establishments primarily engaged in operating a placement service or in acting as agents providing personnel on either a permanent or temporary basis on contract.

In Alberta, as elsewhere in Canada, the industry is basically composed of two major segments - employment agencies which include executive search firms, and temporary service agencies. An interesting aspect of this industry is that both the private and the public sectors are active players. The private sector provides the services for a fee, and primarily deals with "white collar" placements. The public sector which includes such agencies as Canada Employment Centres, does not charge a fee for its services, and tends to focus on "blue collar" employment and employment for the disadvantaged groups in society. Due to this clear distinction of market base, there is little competition or overlapping of services between the two sectors.

The personnel services industry as a whole is very competitive. Little information is available on industry output or overall employment patterns, as individual firms guard their revenues and market base information with great care. A study carried out by Ontario Ministry of Treasury and Economics estimated that the employment agencies segment of the industry generated in the order of $100 million to $125 million in revenues in Ontario in 1985, and that the temporary service agencies generated about $500 million in revenues in the same year.* This study also pointed out that the

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* Ontario Ministry of Treasury and Economics, 1986, Ontario Study of the Service Sector, Background Papers.

U.S. estimated its market in the temporary help segment of the industry to be about $5 to $6 billion. No estimates on industry output are available for Alberta's personnel services industry. However, based on the numbers of establishments in the industry, it is estimated that Alberta's market is no more than one-fifth that of Ontario.

The industry as a whole has not shown any notable growth in the number of firms in the last decade or so. Ontario, which was estimated to capture the biggest portion of the Canadian market in the personnel service industry, and which has most of the large personnel service firms in the country, witnessed only a 0.8% growth in the number of employment agencies and a 0.4% growth in the industry's employment in the province between 1978 and 1983.*

Notwithstanding this slow growth pattern for the industry as a whole, studies carried out on the industry in the U.S. found that the temporary help segment of the industry has enjoyed extraordinary growth since the early 1970's. This trend suffered a temporary setback during the 1980-1982 recession years in the U.S. However, this segment of the industry has since recovered in the U.S., and its employment is expected to enjoy above-average growth rates when compared to the projected growth rates for all industries as a whole. Already, available statistics indicated a phenomenal rise of employment by 70% in the U.S. temporary help industry between 1982 and 1984.**

The situation with respect to growth in the temporary help industry in Canada or Alberta is less clear. The Ontario study regarded temporary help as an important growth segment of the industry.

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* Ibid.

** Carey, Max L. and Kim L. Hazelbaker. 1986. "Employment Growth in the Temporary Help Industry" in Monthly Labour Review. April 1986.

Similar to other provinces, there is a heavy concentration of personnel services establishments in large cities in Alberta. Calgary and Edmonton each has 42% and 29% respectively of all personnel services establishments in the province. Also, large firms tend to concentrate in major cities and towns. Our survey estimated that in Alberta there are only about 30 to 35 large firms with employment of 20 persons or more. The large firms, especially the nationals and internationals tend to capture the more lucrative corporate market while the small firms tend to respond to the needs of small business.

The employment agencies segment of the industry generally deal with placement services in the following areas:

- o Executive Search
- o Registry Services (maid, nursing, modelling)
- o Placement Services
- o Professional Employment

The temporary help segment of the industry generally have the following groups of clientele:

- o Clerical Services
- o Technical Services
- o Medical Services
- o Industrial Services

Due to the existence of Canada Employment Centres which tend to focus on the manual labour job market, the private personnel services agencies find themselves increasingly dealing with the "white-collar" market, with major market areas in clerical, administrative, technical, sales, managerial and executive fields.

While spokesmen in the industry see a healthy outlook for the temporary help segment and the executive search segment of the industry, the industry as a whole in Alberta appears to face a long recovery period ahead.

4.1.1 Industry Status

According to our survey estimates, there were approximately 140 establishments in Alberta engaged in the temporary help and employment services or personnel services industry as of December 1986. About 20% to 25% of these establishments (30 - 35 firms) are estimated to employ more than 20 persons or more.

These large firms are mainly located in the province's large urban centres, including Calgary, Edmonton, Lethbridge and Red Deer. Types of operations in these cities include franchises, independents, nationals and internationals. Growth in these firms tends to occur through acquisitions or franchises from the U.S. The international and national firms have a greater ability to withstand economic downturns; they can also afford to spend more on training and to access information from their other offices. The smaller independent firms which capture 80% of the Alberta market have a high turnover. The independents respond to the demands of regional and local firms.

Exhibit 4.1.1 shows the composition of personnel services firms in Alberta in terms of years of operation in the province. While well over 50% of the existing firms have been in business for over 5 years in Alberta, historically there appears to be a relatively high number of new entries in the industry. About 24% of the existing firms started their operations 3 to 5 years ago, and about 23% have started their business within the last 2 years. Only one other business services industry, namely computer and related services, among the eight surveyed

industries in our study, have shown a higher level of new entries than the personnel services industry. However, it should be noted that while there appears to be a relatively high level of new births in the personnel services industry group, the number of deaths, mergers or acquisitions have been also very high. Although based on different data sources, our survey estimate of 137 firms in Alberta as of December 1986 is a substantial drop from DRIE's estimate of 220 firms in 1984.

EXHIBIT 4.1.1
Years Of Operation In Alberta
Temporary Help/Employment Agencies (771)

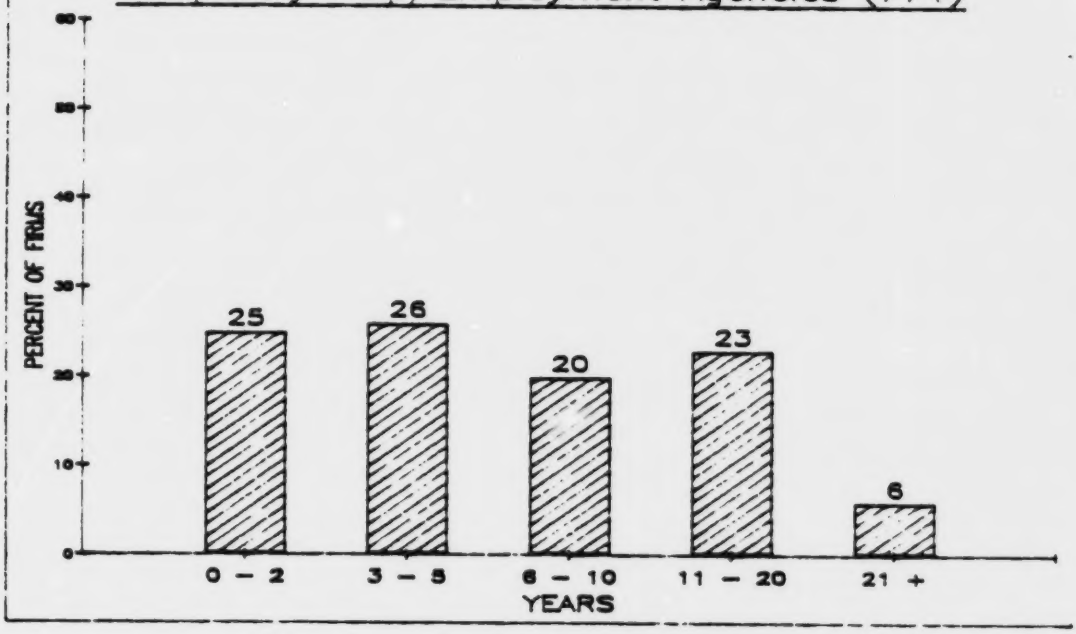


Exhibit 4.1.2 provides the percentage distribution of services provided by the personnel services industry in Alberta based on work performed by individual firms. As the graph shows the two largest segments are placement services (31%) and personnel supplier (30%).

EXHIBIT 4.1.2
Services Provided (%)

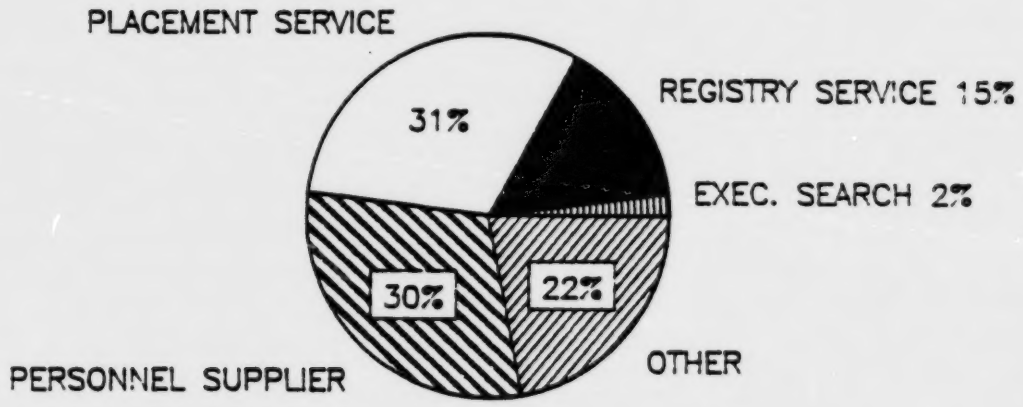
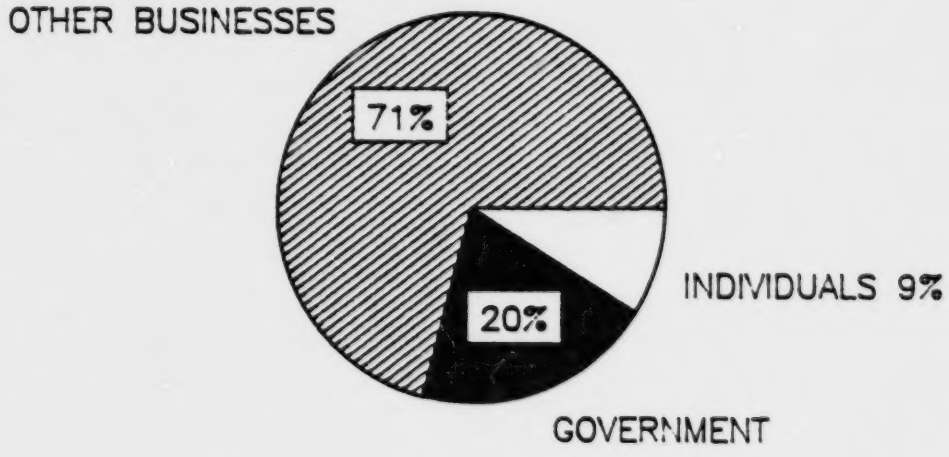


EXHIBIT 4.1.3
Clients Served (%)



The industry's largest client group is other businesses, constituting 71% of the client base (Exhibit 4.1.3). It is interesting to note that government constitutes 20% of the industry's client base. Only one other business service industry, namely management consulting, has as large a proportional client base from the government sector.

For firms in existence since 1980 it appears that their average firm size has increased substantially, from 15 persons per firm in December 1980 to 41 persons per firm in December 1986. Registrants for temporary placement now constitute 83% of the total employment in the subsector.

4.1.2 Employment and Occupations

According to our survey, the personnel services industry in Alberta is estimated to employ about 4,900 persons. This employment level appears to have been more or less maintained at least in the last 2 years. DRIE estimated the level of employment in 1984 to be at 4,800.

As mentioned above, the employment in the personnel services industry in Alberta is overwhelmingly represented by temporary placement personnel, that is, those who register to temporary jobs; the remainder are employees of the agencies. (Eighty-three percent of the employment in this industry is in the temporary placement group). Within the temporary placement group, it is estimated that 60% to 70% of the employment is in the office/clerical market. Only 3% of the employment in this industry is in the management positions, and another 3% for professional positions. The remaining (11%) are support staff. Among the professional staff, the major occupational areas they work in are employment services, accounting, architectural, engineering, scientific and technical services and other business services.

Relative to other surveyed industry groups, the personnel services industry in Alberta reported very low use of sub-contractors. About 13% of the firms surveyed have used sub-contractors, as compared to, for example, 58% in the advertising industry.

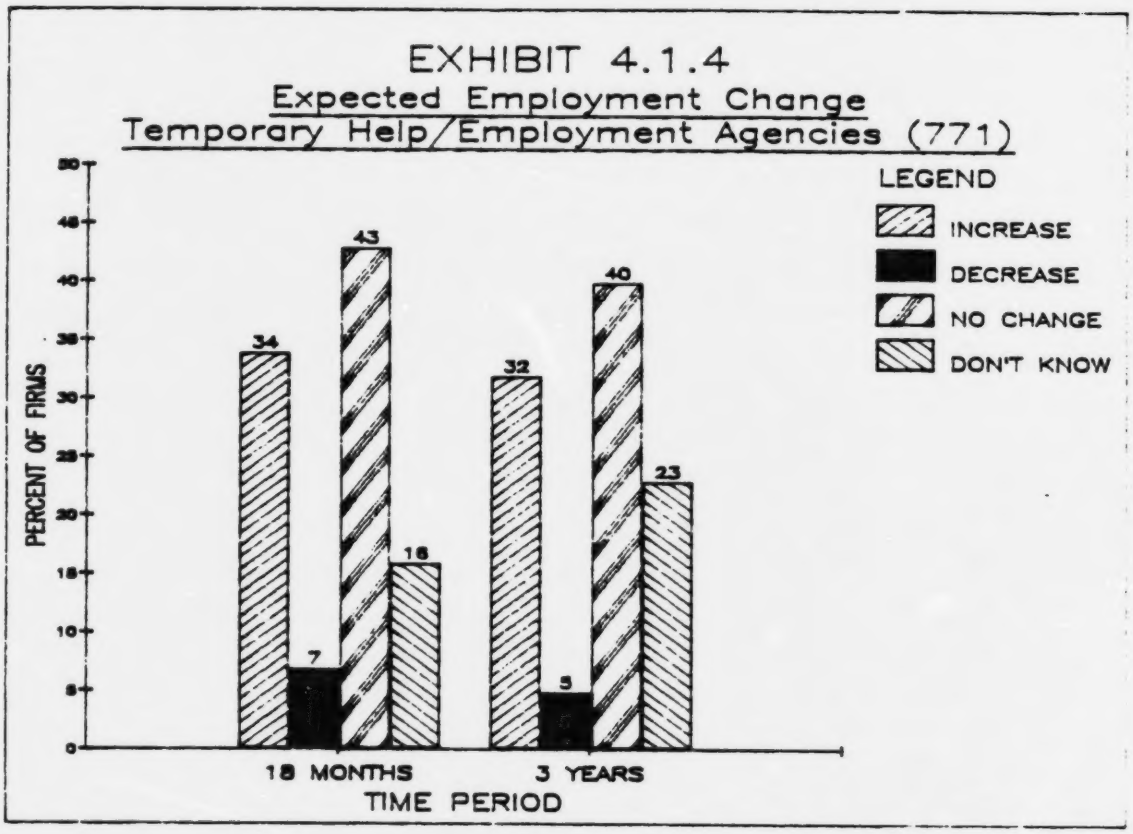
4.1.3 Industry Trends

Expected Employment Change

Firms in our survey were asked to project the expected change in employment in their firms over the next 18 months and 3 years. Forty-three percent expect no change in employment over the next 18 months. About 34% of the firms expected increases in employment, while only 7% expected decreases. The percentage distribution of responses for the projected change in employment in the next three years is very similar to those for the next 18 months. Overall, the personnel services industry shows higher optimism than most other surveyed industry groups. Exhibit 4.1.4 presents these survey findings. The main areas where employment growth was expected include placement services and registry services.

Industry Outlook

In Alberta, the personnel services industry suffered a serious setback in the early part of the 1980's due to the recession. While the industry's employment appeared to stabilize in the last two years, recovery for the industry as a whole is expected to be uneven, with the main segments in the industry, namely executive search and temporary help, experiencing the most growth. Both the U.S. and Ontario have projected significant growth in these two areas. In fact, in the U.S. both segments have already witnessed substantial growth in the last 4 to 5



years. Executive search services revenues in the U.S. have reported to have grown by 30% to 40% between 1983 and 1986*, while temporary help employment has almost doubled in three years since the trough of the U.S. recession in 1982.** The

* Ontario Ministry of Treasury and Economics. 1986.
** Carey, Max L. and Kim L. Hazelbaker. 1986.

growth in Alberta's counterpart segments of the industry will lag behind those in Ontario and the U.S., as the recovery of the Alberta general economy has taken longer and at a slower pace. Domestic/home health services, personnel supplier services and secretarial services are the next three most frequently identified growth areas.

It is also expected that competition among establishments both within the province and interprovincially and internationally will be keen as the industry recovers. Large national and multi-national U.S. and Ontario firms will endeavour to take over some market share in Alberta as these firms continue their search for new geographic markets in the West.

Survey respondents were evenly divided between those who felt the expected growth would create manpower shortages and those who believed the increased demand could be met with the current staffing levels. People identified as likely to be in high demand were the highly skilled and those who possess knowledge of the latest technological advancements in specific job markets, particularly in computer-related fields.

Key Factors Affecting Employment Trends

A basic restructuring of the personnel services workforce is occurring in North America. The trend is for both government and private sector employers to contract out more work in response to the fluctuations of the economy. Instead of retaining a permanent over-sized staff in anticipation of peak periods, employers found it more sensible and less expensive to keep a bare minimum pool of permanent staff to meet the steady work demand, and hire temporary help as additional work arises.

Also, in the interest of efficiency and increased productivity, more and more firms are operating equipment on more than an 8 hour basis requiring additional staff in the off-peak hours.

The quality and respect for temporary employees is growing in part because increasingly temporary help agencies are providing full training programs. The larger agencies have the resources and the technology to train personnel, and employers are now coming to the temporary help sector agencies for "advanced technology". Temporary help agencies also provide workers with an opportunity to "browse and to build up their skills." Forty percent of temporary personnel are offered and move into full time employment.

Technology will also have a profound effect on the employment industry as it has on many other sectors of the economy. With increasing automation in offices, the office/clerical market will see more demand for workers with the latest skills in such areas as computer operation, word processing and even some simple programming/analytical work while the demand for the traditional basic clerks will decrease.

Critical Skill Areas

Critical skill areas in response to anticipated growth in this industry can be discussed under two separate headings: temporary help industry and other personnel services industry.

In the temporary help industry, the following categories of workers have been identified as being in short supply:

- Skilled word processing, memory typewriter and micro-computing operators. Workers with software knowledge, e.g. Lotus 123; D-Base application on PC's.

- Legal and medical secretaries/assistants.

- Office assistants with bookkeeping and accounting skills, preferably with training in computers.

In the other personnel services industry, personnel in demand range from low skilled workers (maids, housekeepers, etc.) to professionals and managers/executives. The following skills were identified in our survey and personal interviews as being in short supply:

- Computer programmers and systems analysts with practical experience-primarily in mainframe applications.

- Experienced technical sales personnel in the electrical and mechanical fields.

- Technical support personnel in data processing and computerized system area.

- Agricultural/livestock personnel, from herdsmen to managers.

- Technical, professional and managerial personnel in the oil and gas field.

- Experienced employment/personnel placement consultants and managers.

Required Training

The employment services industry is becoming more and more technology oriented. The biggest challenge to firms engaged in this industry is trying to find knowledgeable and skilled people in the key growth areas of micro-computers and word processing.

Well over 20% of the survey firms indicated that these skills as key training areas for the future job market. Micro computers are taking on greater importance in both small and large offices and are rapidly replacing word processors. With rapidly changing technology, re-training of workers is becoming more and more necessary.

Furthermore, better business management and communication skills in addition to trained technical skills are increasingly being demanded by employers.

Apart from class-room training, many employers feel that practical experience or on-the-job training is still an indispensable way to gaining the necessary knowledge and skills to perform a job well.

4.1.4 Issues and Suggested Initiatives

Based on our survey of representative firms in the industry, about half of the respondents had difficulties in providing the necessary training for their employees. The most often cited difficulties were cost; lack of time, resources and/or training staff; and unavailability of training courses or programs which their employees can easily access. About 30% of the respondents felt that training initiatives should be provided by the provincial government, although about 24% felt that they did not see any need for government initiatives or involvement in training. About 57% of the respondents would like to see some employment enhancement initiatives from the provincial government to improve employment in their industry.

Overall, the comments on training and employment in the personnel services industry can be summarized as follows:

- Government sponsored retraining programs are not focussing on the appropriate candidates. Very often, candidates who are being trained in word-processing and micro-computers do not have basic life skills, office skills or communication skills. These candidates are ill-prepared for the real world job market. Also government sponsored courses do not emphasize enough business skills versus technical skills.

- There are no government-set standards to ensure consistency in the programs in various training institutions using government training funds.

- Training subsidies are not of sufficient size or duration to allow trainees to stay in courses long enough to develop the necessary skills. In other instances, trainee allowances are not properly used for training purposes. A mechanism for monitoring spending of government training funds is warranted.

- One of the barriers to keeping up with the newest technology is the cost of acquiring new equipment for computerized training. Small firms are often not able to afford new equipment, and even teaching institutions are often using outdated equipment.

- Rapid technology changes as well as layoffs necessitate retraining of older workers for re-entrance to the labour force. Retraining is harder for older workers and consequently, more counselling and support is required.

- Respondents involved in publicly funded training programs have the following observations:

i) there are inconsistencies in governments' approach to administering programs and to evaluation of programs and decision making on programs;

ii) delays in funding decisions make planning/implementation of programs difficult;

iii) government establishes success criteria (e.g. 70% placement rates) on training programs, but there is no opportunity for input from training agencies to determine the means of achieving these objectives; and

iv) the success criteria established for students are too low; students are insufficiently prepared to enter or re-enter the work force.

- The current youth programs are underfunded.

- From the employers' point of view, one of the major difficulties in training is that government sponsored courses are inaccessible. There are a number of situations: courses are scheduled in inconvenient times - most employers would like their employees to acquire upgrading in their after-work hours; courses are not available in rural communities; training programs are too general - specialized training is not available (e.g. industrial testing, livestock management); and there are few short-term refresher courses - most courses require long-term absence of employees from work.

Given these expressed concerns in the industry, the following are some suggestions for the provincial government to consider for improving the training and employment situations in the industry. These are presented in order of priority, based on the level of expressed interest from our interview respondents.

Expanding Training Subsidies

The most frequent request was for increased training subsidies at all levels: grants to private firms to provide their own training, trainee allowances; funding to educational institutions and government-administered programs.

Improvement of Government-Sponsored Training Programs

Alberta CD&E should work with Alberta Advanced Education to explore developing cooperative educational programs, such as in the industrial engineering field. Our respondents felt that a practical orientation in the government-sponsored training programs would be beneficial. The industry has identified the following areas where training would be needed to meet future requirements: word processing, computer skills, personnel counselling, agricultural/livestock management and industrial engineering/testing.

Eligibility for Wage Subsidies

Wage subsidy programs for youth ages 17 to 24 currently require the recipients to have been unemployed for 2 months prior to qualifying. Eligibility criteria should be revised to enable eligibility upon termination of a training course rather than requiring a 2 month wait.

Eligibility for Training

Currently, unemployment insurance recipients must be unemployed for 24 weeks before they can qualify for training. Some of our respondents felt that this time is too long and should be revised.

Training candidates should also be screened prior to acceptance to government sponsored word processing or micro-computer courses. Trainees should possess the necessary basic life skills, aptitude and desire for a specific training program.

The older workforce considering re-entering in a new job market and taking government sponsored training programs should be provided with special counselling as the older workforce is less able to adapt to a new job market or to acquire a new skill.

Promotion of Industry

Alberta CD&E through consultation with Alberta Economic Development and Trade could help businesses become more competitive by introducing computerization or other forms of start-up assistance.

4.2 Computer Related Services (772)

4.2 Computer and Related Services (772)

The computer and related services industry group includes those establishments primarily engaged in providing services such as programming, planning and systems work, in providing computer facilities on a rental, leasing or time sharing basis, and in the maintenance and repair of computer equipment.

The computer services industry has historically been one of the fastest growing service industries in Canada. Statistics Canada reports that the number of establishments providing computer services approximately doubled in the four-year period 1980 to 1984; this phenomenon was also evident in Alberta. As of 1984 some 275 of 2109 establishments in Canada were located in Alberta (approximately 13%) and $138 million of $1,767 million in operating revenue accrued to Alberta firms (approximately 8%). In the order of 75% of revenue in Canada accrues to firms in Quebec and Ontario.*

A predominant phenomenon observed across Canada, and occurring in coincidence with expansion in the numbers of firms, has been the reduction in the average number of employees per firm. In Alberta, as elsewhere, this phenomenon has been attributed to the growth of small businesses providing specialized services.

The computer services industry is heavily concentrated in Edmonton and Calgary. Survey results indicate that 52% of firms are located in Calgary, 31% in Edmonton, with the remainder situated in secondary urban areas. The Calgary-based firms are oriented predominantly to the diverse computational, processing and storage requirements of the oil and gas industry. The oil and gas sector accounts for over 55% of revenue derived by the industry in

* Source: Statistics Canada. Catalogue 63-222.

Alberta and is typified by the need for sophisticated analytical processes and confidential data storage.

Edmonton-based firms are oriented to the needs of the provincial government for large volume storage/retrieval systems and to a mix of industrial, retail and institutional applications.

The computer services industry consists of a number of definable "subindustries" based on the types of services provided; for example:

- o Software development and support
- o Systems analysis and design
- o Computer rental, leasing or time sharing
- o Computer input and data processing
- o Computer system maintenance and repair

The ongoing development of new technologies has however led to the creation of a myriad of smaller market niches and a blurring of traditional service groups.

It is projected that revenues to the Canadian computer services industry will continue to rise at an annual overall rate of 14% to 16% with a doubling in revenue between 1985 and 1990.* Predicted growth rates vary from a high of 25% to 30% in the packaged software field to a low of 2% to 4% in the relatively stagnant batch processing and time sharing fields.

Against this background the Alberta industry has struggled to maintain and expand revenues in the face of recessionary cycles.

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* Source: Canadian Datasystems. August 1986.

4.2.1 Industry Status

It is estimated from this survey that there are approximately four hundred firms in Alberta, as of December 1986, which are primarily engaged in the provision of computer services. The actual survey projection of 392 firms consists of 38 firms with twenty or more employees and 354 firms with less than twenty employees. Exhibit 4.2.1 shows that more than one-half of all surveyed firms have been in business for five years or less, reflecting the rapid growth in numbers of small new firms in the Province.

EXHIBIT 4.2.1
Years Of Operation In Alberta
Computer & Related Services (772)

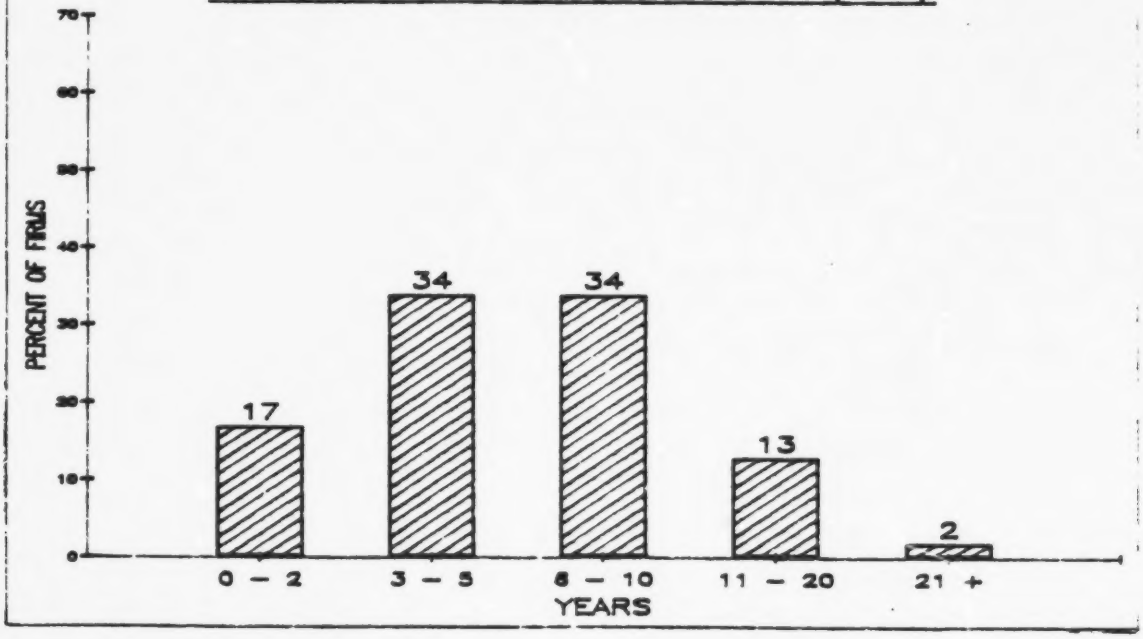


Exhibit 4.2.2 provides a percentage breakdown of services provided, by specialty area, and Exhibit 4.2.3 presents a breakdown of clients served by client group. Software development and systems analysis are reported in the survey to comprise about 50% of activity. Over the last five years in Canada these service areas have experienced the greatest rates of annual growth in the industry.

For those firms responding to the survey, historical data indicate a doubling in average full-time employment per surviving firm between 1980 and 1986 (from 4 employees per firm to 8 employees per firm). Although firms engaged in providing computer services are typically smaller than firms in most of the other surveyed industry groups, the reported rate of growth in average size in the computer services industry is exceeded only by the temporary help industry. Thus, for those firms which have endured to 1986, there is evidence of significant growth in firm size. Longitudinal data (i.e. from annual surveys conducted by Statistics Canada) indicate however that between 1980 and 1984 there has been a steady increase in the number of firms (137 in 1980 to 275 in 1984) and a steady decrease in average firm size (12.3 employees per firm to 7.2 employees per firm), thus indicating substantial entry of new small firms into the industry.

4.2.2 Employment and Occupations

Total employment in the Alberta computer services industry is estimated from this survey to be 3438 persons, of whom about 85% are full time workers and 15% are part-time workers (Exhibit 4.2.4, as of December 1986). Discussions with industry representatives indicated that part-time work on contract or through temporary help agencies has become more prevalent as firms downsized internal computing services groups in response

EXHIBIT 4.2.2
Services Provided (%)

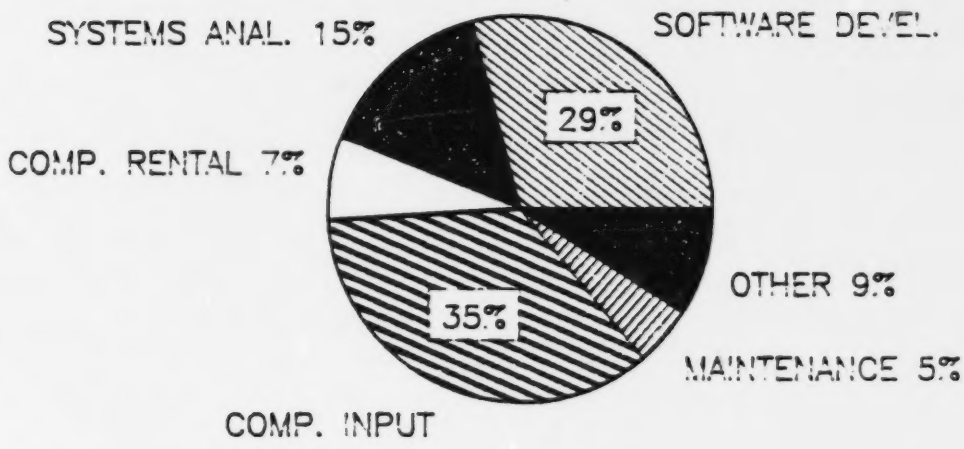
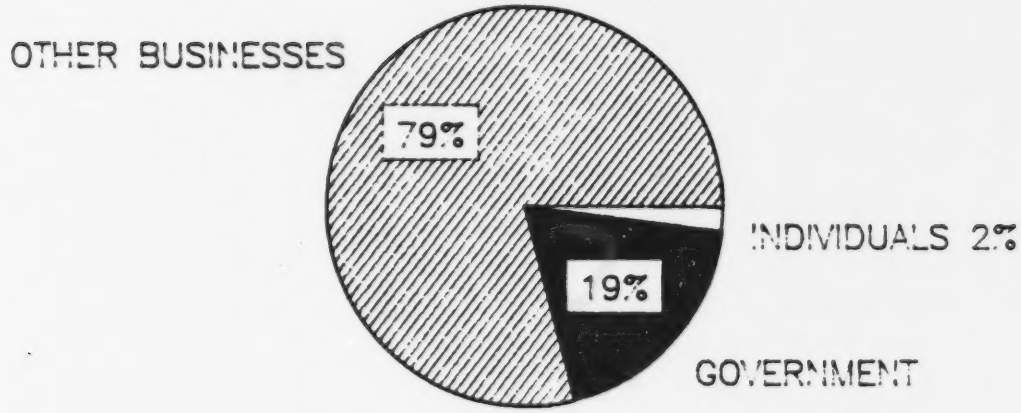


EXHIBIT 4.2.3
Clients Served (%)



to the economic downturn in Alberta. The computer services industry is not unlike other professionally accredited business services industries in that the group of employees designated as professionals comprises nearly half of employment (Exhibit 4.2.5).

As the diversity and complexity of technology and market niches served in the Alberta computer services industry increases, so does the need for highly specialized skills. Accreditation is generally provided through universities, colleges, and technical institutes.

In the field of management and systems consulting the Canadian Information Processing Society and Canadian Association of Management Consultants are actively pursuing designations of professional standing, standards of education and professional competence, and codes of practice.

Relative to other industry groups surveyed, the computer services industry reports moderate use of subcontractors (29% of firms reported use of subcontractors). The industry also experiences very little, if any, seasonal variation in employment.

EXHIBIT 4.2.4
Employment: Full-Time/Part-Time
(%)

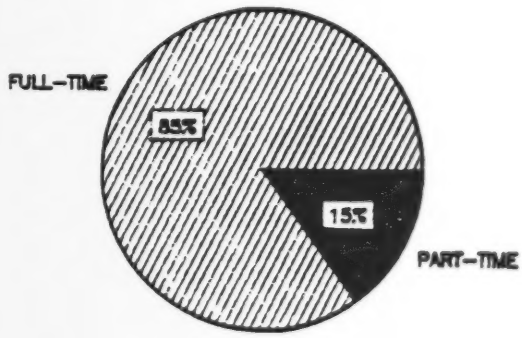
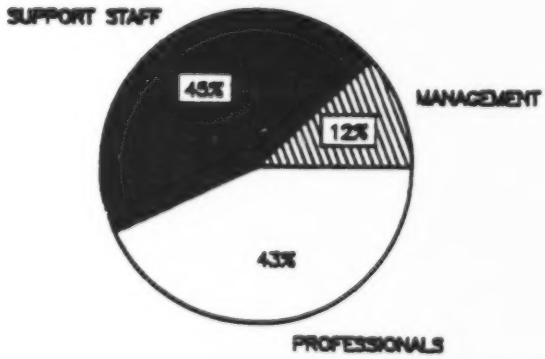


EXHIBIT 4.2.5
Occupational Status
(%)

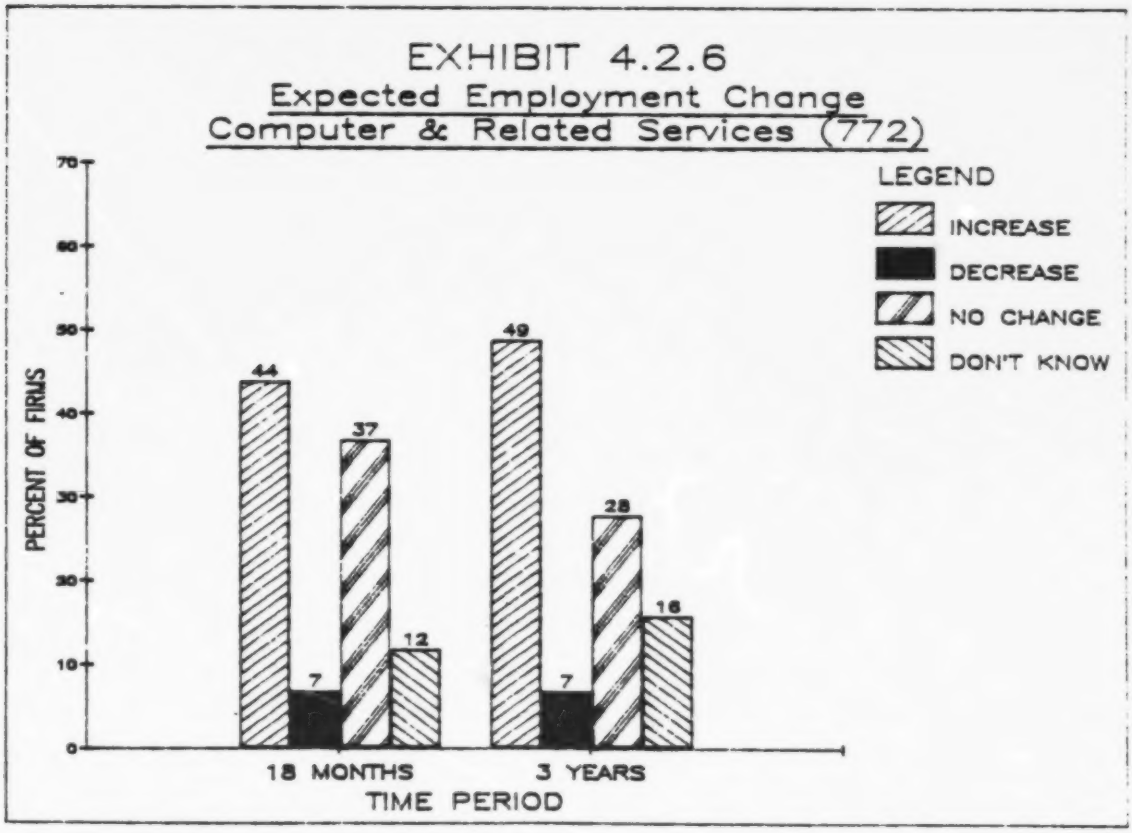


4.2.3 Industry Trends

Expected Employment Change

Survey respondents were asked to project the expected change in employment in their firm over the next 18 months and 3 years. In the computer services industry 44% and 49% of firms projected increases in employment over these respective time periods, while only 7% of firms projected decreases in employment (Exhibit 4.2.6). Relative to the other industry groups surveyed, the computer services industry evidenced the highest degree of optimism in employment growth. The greatest absolute increases in expected employment were cited in the support staff and software development skill areas.

EXHIBIT 4.2.6
Expected Employment Change
Computer & Related Services (772)



Expected Market Growth

The five most frequently cited areas of expected market growth from the survey were:

- Micro-based software development
- Data processing, information management, archiving
- Rental, time sharing and sales
- General software development
- Systems analysis and design

Focus group participants and interviewees highlighted some specific market niches where growth is expected:

- Public database and business information services (such as stock market prices) - although originating primarily out of Eastern Canada and the U.S. there are unique opportunities in the oil and gas sector in Alberta;
- Worst-case loss protection - centres are being set up to provide back-up system support on a contract multi-client basis;
- Electronic publishing;
- System networking and data communications interfaces;
- Medical and educational fields - where Alberta is allocating significant government R&D resources;
- Total service system integration - guaranteed application solutions;
- Evolving emphasis on coordination and planning of information management in government;
- Deregulation of communications may allow common voice/data carriers.

Labour Supply/Demand Situation

Within the growth areas noted above, consistently about one-third of firms indicated an expected shortage of skilled labour. Some key points made are as follows:

- Skill shortages currently exist in the higher skill areas, particularly among professionals with 3 to 10 years of experience. This labour force group is highly mobile and has responded recently to opportunities in eastern Canada.
- Specific shortage areas include: persons with a good background in fourth generation languages; data base expertise; scientific application analysts; skilled CAD-CAM and mapping personnel; and technical writers.
- Technical computer specialists with an entrepreneurial background, business experience and good communications and interpersonal skills are constantly in demand.
- There is an excess supply of technicians in the repair servicing area; also, of hardware-oriented individuals and of junior people with little business experience.

Technological Change

The nature of the computer services industry is strongly affected by technological change. In fact, the industry in general has become dependent on technological development and obsolescence to sustain the large annual revenue growth experienced over the last three decades. Discussions with industry representatives indicate that the rate of technological change shows no signs of abating and the effects of these changes are expected to be pervasive in all sectors of the international, national, and provincial economies. In most instances the Alberta computer services industry follows technological change which originates in the major international centres of research

and development. There are however concentrations of innovative talent in the industry which have grown in conjunction with Alberta's maturing industrial manufacturing base. For example:

- o Software development for the oil and gas industry;
- o Process control systems for the pipeline and petrochemical industries;
- o Digital switching and data communications systems.

The Government of Alberta has supported the development of innovative products and services through a number of programs and institutions including:

- o The Electronics Test Centre
- o The Alberta Microelectronic Centre
- o The Electronics Industry Information Centre

It is not practical in this report to review the full range of technological changes which are expected to unfold upon the computer services industry over the next decade. Industry representatives did however highlight a number of key developments:

- o Ongoing improvements to the power and capabilities of personal computers;
- o Increased use of "supercomputers" with unit costs of processing declining;
- o Greater development and application of artificial intelligence systems;
- o New storage technologies such as the read/write optical disk;
- o Increased development and use of fourth generation languages, permitting broader access to machines;
- o Increased use of automated programming aids (known as applications generators and programmers work benches).

The interested reader is referred to a more comprehensive review in the Report of the Ontario Task Force on Employment and New Technology (1985). The implications of rapid technological change are felt in almost all sectors of the economy, and notably in the "front line" of the computer services industry. As was highlighted in our investigations of other business services industries, changes in computer technology and capability have lead to:

- o A need for continuous retraining and upgrading of the labour skills required to effectively operate, apply and maintain new technologies;
- o A need for managerial and organizational adaptation to new ways of doing things;
- o A seeking of avenues by which obsolete labour can be otherwise absorbed in the productive labour force.

The following sections provide an overview of more specific trends in key subcomponents of the computer services industry.

Processing Sector/Service Bureaus

There has been considerable retrenchment in the processing/service bureau business in Alberta over the last three to five years, with four major firms withdrawing from the market altogether. This retrenchment is attributed to the decline in the Western Canadian economy and to a long-term national decline in demand for processing services. This sectoral decline has been caused by the almost universal trend towards in-house use of microcomputers and has led to a national consolidation of firms through mergers and acquisitions. The remaining players in Alberta have adapted by:

- o Developing external markets, e.g. U.S., Pacific Rim;

- o Diversifying product and service lines; and
- o Focussing on ways and means of integrating microcomputers into larger systems.

In Calgary, service bureaus have developed new specialized services for the oil and gas sector. Given the downturn in this industry, these firms have had to emphasize cost savings and effective use of resources. At the same time, many firms have sought stability in other less fluctuating markets such as medical services and transportation.

The general outlook for the processing/service bureau component of the computer services industry in Alberta, and for that matter elsewhere, has two key dimensions:

- o A continuing decline in data entry services;
- o Less need for "out-of-house" raw processing power and an increasing need for complete problem solving services.

The "out-of-house" service bureaus will retain a competitive advantage in certain market segments such as intermediate-sized firms (i.e. that are too big for micros and too small for in-house facilities) and in applications where design is costly, changes are numerous, or where response times are critiical (e.g. payroll). Technological advances are allowing service bureaus to overcome problems of data security and system bottlenecks.

Industry representatives indicate that competitive pressures in Alberta have resulted in increased labour and machine productivity and reduced margins for raw processing. They report, somewhat optimistically, that the historical movement to in-house processing (i.e. based on precepts of ownership, control, and belief in the microcomputer) is now being subjected to critical

review on the basis of cost-effectiveness. This review process combined with a broader "total solution" approach to the service bureau industry provides encouragement for those firms remaining in the province.

Systems Consulting

The systems consulting component of the computer services industry has in recent years been the fastest growing segment in the industry, even under the recessionary cycles of the Alberta economy. The orientation of this industry component was described by some industry representatives as being dependent on the position of the business cycle - higher level management consulting is popular in tough times with a focus on cost-effectiveness, whereas the personnel supply side of the industry is prevalent in expansionary times.

This industry component has had to adapt, and must continue to adapt, to the increasing penetration of microcomputers into all applications niches. The systems consulting industry provides in large part the "brain power" behind the design and implementation of computer-based solutions to a wide range in problems in industry and government. Major trends in this industry group, as cited by Alberta-based industry representatives, include:

- An increasing demand for complete service delivery (i.e. from problem review and analysis, to applications snd system development, to ongoing system maintenance and upgrading). The current client focus is now on guaranteed turn-key solutions with minimal encumbrance to the purchaser.

- This market desire for guaranteed performance has shifted the risk of less-than-projected performance to the systems consulting companies. In many instances (e.g. large instal-

lations, complex problems, new applications) these risks can be high, thus requiring a substantial financial base to absorb potential performance penalties. The result in Canada has been an ongoing consolidation of regional firms into national scale firms, with a few companies penetrating the world-scale echelons (currently there are 20 to 25 major international firms of which a few are Canadian).

- Concurrently with the consolidation of larger firms at a national level has been a proliferation of smaller firms at the regional level, serving small business and highly specialized markets. In Alberta the continuing growth of one and two person firms is in part attributed to layoffs from the oil and gas sector. This particular phenomenon is felt currently to be at an equilibrium with future growth in employment and revenue tied to the profit status of the primary industries in Alberta (i.e. oil and gas, agriculture, petrochemicals, forestry) and to the fiscal position of the provincial government.

With respect to medium to long-term demand for specific labour skills in the systems consulting field, there is a general feeling that there will be a reduced demand for technical skills (i.e. for installation, start-up, maintenance) as manufacturers make machines which are more easily installed and a reduced demand for assembly programmers as languages become increasingly "user friendly". In fact the advent of programming aides (i.e. applications generators) and so-called "fourth generation" languages will make programming accessible to a broad range of users. Industry representatives in Alberta indicate that the province does not currently have the core of expertise required for new language development.

Software Development

The software development field is expected to be one of the most active components of the Alberta computer services industry. Software development is broken down into two primary functions: custom development for single clients and package development for open marketing. In Alberta it is expected that there will be a continuing need for custom software development for large scale systems but a reduced need for custom programming on small scale, micro-computer based applications. In the latter case, owner-operators are becoming more adept at using newer user-friendly languages, and generic software is becoming increasingly available for many applications. Continued growth is, however, expected in the development of micro-based packaged software. Alberta industry representatives commented that this industry component is not as well developed as in Ontario and British Columbia and is currently oriented to highly specialized technical applications rather than mass-market applications. The continuing problems of protecting proprietory rights and moving data and software over borders were cited by industry representatives as barriers to industry development.

4.2.4 Issues and Suggested Initiatives

Orientation of Education and Training to Business Needs

A common point made by industry representatives was that current graduates of computer sciences curricula have inadequate skills in the primary areas of business operations, for example: marketing, project management, and client liaison. This gap was attributed to the specialized technical focus often encouraged by post-secondary institutions. Although recognizing that many of these skills are, of necessity, learned on the job, the point was made that greater emphasis should be given to acquisition of

business skills within existing computer sciences curricula (for example through commerce or business administration courses).

Another key point made was that educational institutions were not keeping pace with the rapid technological change occurring in the market place, thus requiring retraining of graduates upon entry to the workforce.

In general therefore it was felt that there was a need to "marry" business and educational/training institutions with respect to their mutual needs. It was pointed out that in the United States funding is provided to educational institutions which carry out research which will benefit business. Examples in Canada of co-operative programs, where education and job placement are combined, were cited as positive models for fulfilling the needs of business (e.g. University of Victoria, University of Waterloo). It was reported however that such a program was examined at the University of Calgary and found to be excessively costly to administer.

Mount Royal College has recently implemented a co-op program in computer information systems using seed money from the Canadian Employment and Immigration Commission. The College reports a favourable response from both students and employers in their first year.

Overall, contributors to the study stressed the advantages of the following initiatives:

- Involve business in curriculum design and research directions at education and training institutions; government should coordinate business and academic institutional goals;
- Pursue and promote co-operative education programs where practical and feasible;

- o Incorporate business education into technical curricula;
- o Government should have more control over how educational grants are spent.

Professional Standards of Practice

Industry informants indicated that standards of performance are needed to ensure the provision of high quality service, to maintain credibility for the industry, and to establish bench marks for comparison of firms in the industry. It is felt that standards would lead to a clarification of education and training requirements and that there would subsequently be more equitable competition and rates. The Canadian Information Processing Society is currently working on such standards. The role of government in supporting standards could be through procurement practices and educational institutions.

Training Requirements and Support for Training

Survey respondents indicated that, for the most part, training requirements could be fulfilled by university degree programs, technical institute and college diploma programs, and private sector programs offered in Alberta. Respondents frequently suggested that on-the-job training and work experience were essential to developing useful skills. Some industry representatives suggested that industry be paid directly by the government or educational institutions to provide on-the-job training.

A relatively small proportion of respondents and interviewees indicated that higher-level specialized training was unavailable in Alberta due to the small market size. The individuals also cited the cost of sending staff out-of-province or importing trainers as a barrier to more training. It was suggested that

government could assist by subsidizing such highly specialized training. In a similar vein, rural Alberta firms cited limited access to the training provided in the large cities as a barrier.

The most frequently cited barriers to providing training to staff were cost and lack of time (29% and 23% of responses respectively). The unique budget constraints typically experienced by small firms were also cited as a key barrier to providing formal training to staff. The high mobility of staff in the industry was cited as a barrier to company investment in human resources. The cost of advanced hardware and software to support training was also highlighted.

When asked to suggest training initiatives which the provincial government could provide to assist the industry, the following responses were most prevalent:

- Wage Subsidies (23% of responses);
- No initiatives expected (23%);
- Improve quality of and access to education (16%);
- Provide financial assistance, tax reductions (15%);
- Don't know (11%).

A general consensus of focus group participants was that industry can train well internally to meet their ongoing needs for training of existing staff. Two key prerequisites are that people entering the labour force have the necessary basic technical and business skills and that government assist in the coordination of a strategic industry focus.

Strategic Industry Focus

An important point made by focus group participants was that government has an important role to play in working with industry to establish a strategic focus for industry development. The point was made that "government can't be all things to all people". It was felt that the industry must build on its current strengths and inherent advantages as a basis for industry expansion and diversification.

The key issue stated with respect to existing and involving technologies is that Alberta businesses and government must work together to establish a clear directional focus and policy development goals. This, in turn will guide the development of appropriate training and marketing programs and coordination activities.

It is notable however that 46% of survey respondents in the computer services industry indicated that they expected no employment enhancement initiatives from government, whereas only 16% expected financial assistance in some form (e.g. low interest loans, wage subsidies). A sizeable proportion of respondents suggested that government promote the industry directly through information dissemination or indirectly through stimulus of the general economy.

Government Contracting

Industry representatives strongly supported a continuation of the privatization and contracting out of government computer services, especially system work. They felt in addition that qualification and performance standards should be built into contracts and that projects should be tendered on a project rather than person basis to provide a fair chance for firms to compete.

Computer Literacy

Concern was expressed for those individuals in the working labour force who are currently computer illiterate and face unemployment if unable to adapt to the "computer age". Training emphasis should be given to keeping these people employed through acquisition of basic keyboard skills and an overcoming of machine fear.

4.3 Accounting and Bookkeeping Services (773)

4.3 Accounting and Bookkeeping Services (773)

This industry group includes those establishments primarily engaged in providing auditing, accounting and bookkeeping services to businesses. The industry has diversified to provide a wide range of auxilliary services including financial and tax advisory services, computer systems advice, and business operations training.

The accounting profession is divided into two primary functional groups: public accountants who provide services which ultimately are required for third parties (e.g. investors, banks, stock exchanges, tax departments, bonding companies) and non-public accountants who provide direct services to the client only. The practice of public accountancy is licensed under provincial statute, currently the Professional and Occupational Associations Registration Act of Alberta. A separate act specifically regulating the practice of accountancy is under development.

Within Alberta there are three professional designations for the practice of accounting. Each has an associated examining and governing body:

- Chartered Accountant, C.A.
  Institute of Chartered Accountants of Alberta (ICAA)

- Certified Management Accountant, CMA
  Society of Management Accountants of Alberta (SMCA)

- Certified General Accountant, CGA
  Certified General Accountants Association of Alberta (CGAAA)

These certifying groups prescribe curricula of study, set examinations, deliver educational programs, and disseminate information to the public.

Historically, public accounting has been restricted to C.A.'s; discussions are being held that could lead to expanding the professional designations allowed to engage in public accounting.

The accounting industry in Canada consists of several strata of national, regional and local firms. The fifteen largest national firms are headquartered in Toronto or Montreal with between twenty and seventy offices across Canada, including Alberta (Exhibit 4.3.1). Most of these large firms are affiliated with international auditing firms. The top 15 firms specialize in the provision of auditing services and in 1984 audited 94% of the Financial Post Top 500 firms. Total professional staff varies from approximately 500 to 2,500 per firm.

Below the top fifteen firms there are a relatively small number of midsized regional firms with five to ten offices and 50 to 500 professional staff per firm. These firms are typically found in the industrial heartland of Ontario and Quebec. The next strata of firms encompasses a wide range of local to regional scale operations with typically three to ten partners. These firms provide the backbone of accounting, auditing and advisory support to small business. No comprehensive data were available to describe the size distribution and geographic distribution of these firms.

In addition to accounting firms with professionaly accredited staff there are a number of firms in this industry group that provide straight bookkeeping (i.e. record keeping) services including ledger, payroll and income tax records.

Exhibit 4.3.1

Top Fifteen Public Accounting Firms in Canada

Rank by Revenue 1985	Revenue $'000	Firm (head office)	Number of Professional Staff	Number of Partners	Number of Offices	Employees	Number of the Post's Top 500 Audited (fiscal 1984)
1	185,000[1]	Clarkson Gordon (Toronto)	2,520[1]	378	23	3,104	74
2	158,000[1]	Thorne Riddell (Toronto)	2,300[1]	330[1]	49[1]	3,000[1]	50
3	140,508[1]	Coopers & Lybrand (Toronto) Jan/86	1,718	251	21	2,313	56
4	122,000	Touche Ross (Toronto) Aug/85	1,724	310	42	2,222	43
5	117,700	Price Waterhouse (Toronto) Jan/86	1,519	195	22	1,988	81.5
6	99,172	Peat, Marwick, Mitchell (Toronto) Jan/86	1,306	216	24	1,658	55
7	92,375	Deloitte Haskins & Sells (Toronto) Jan/86	1,319	199	30	1,679	39
8	84,000	Doane Raymond & Associates (Ottawa) Jan/86	1,253	236	69	1,591	8
9	66,800	Ward Malette (Toronto)	945	206	61	1,203	4
10	54,300	Collins Barrow Maheu Noiseux (Montreal)	1,211	171	34	1,401	4
11	53,000	Samson Bélair (Montreal) Jan/86	747	131	32	1,025	11
12	52,500[1]	Ernst & Whinney (Toronto) Mar/85	687	124	23	908	17
13	40,000[1]	Dunwoody (Toronto) Mar/85	547	128	32	723	0
14	38,000	Arthur Andersen (Toronto) Aug/85	635	44	7	675	27
15	28,000[1]	Laventhol & Horwath (Toronto) Jan/86	367	61	5	484	1

[1] estimate

Source: The Financial Post 500 Summer 1986

Survey data indicate that offices of firms in the accounting industry group are distributed geographically almost equally in thirds between Edmonton, Calgary and other locations.

Twenty-four percent of firms were located outside of the Province's cities, thus indicating a broad rural distribution of accounting firms. This rural presence was significantly greater than any of the other industry groups surveyed.

4.3.1 Industry Status

Survey results indicated that there are 1,313 accounting and bookkeeping firms in Alberta, as of December 1986. This figure compares with 1,271 firms cited for 1984 by DRIE. Although no other independent data were available, industry representatives consistently indicated that there has been limited growth in the number of firms and total employment over this period. An analysis of survey responses indicates that 44% of firms experienced constant employment over the 1984 and 1986 period, 23% cited a decline in employment and 33% cited an increase over the period.

Survey data also showed that some 98% of firms employed less than twenty employees, slightly above the business services sector average of 93%. Forty-one percent of firms indicated that they had been in operation in Alberta for eleven years or more (Exhibit 4.3.2). This proportion is similar to those cited for architectural, engineering and legal firms. The proportion of firms operating in Alberta for five years or less (21%) was the lowest of all industry groups surveyed. These data are indicative of a mature and well established industry.

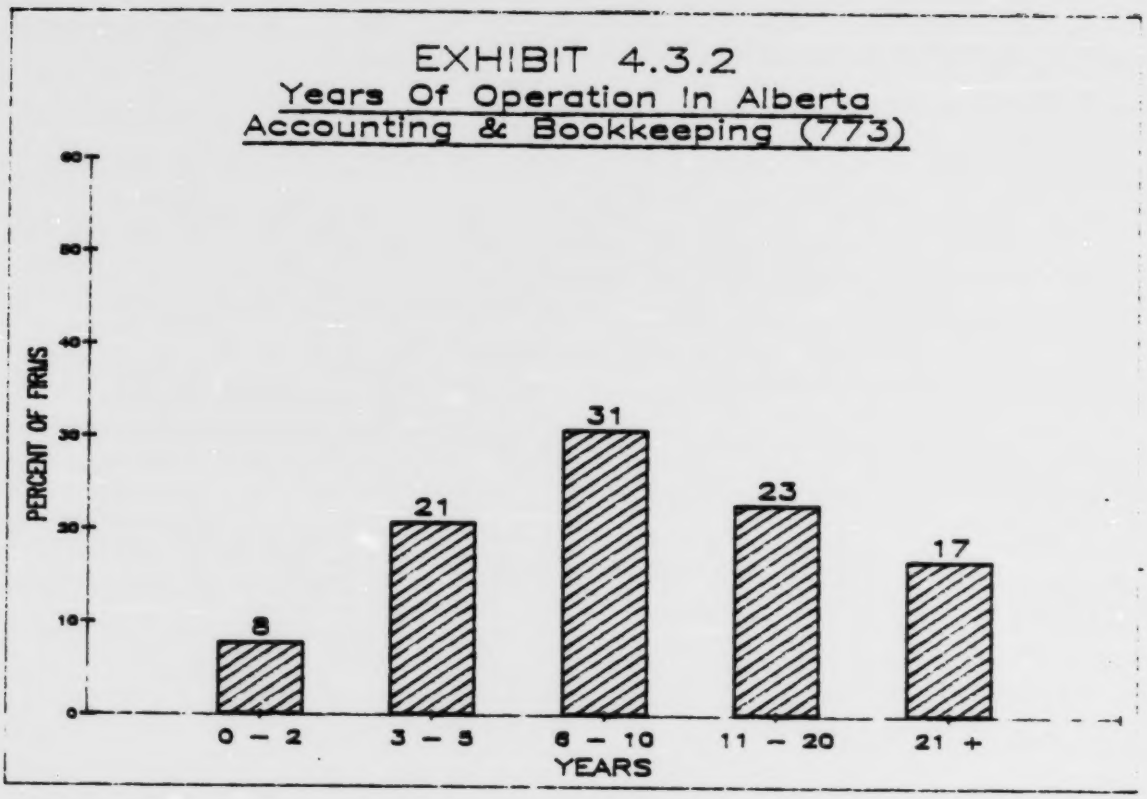


Exhibit 4.3.3 presents a breakdown of services provided by this industry group. It is notable that bookkeeping comprises a small proportion of the industry's service delivery and that auxilliary services (e.g. computing systems and business management consulting) do not yet contribute large proportions of overall service delivery. The "other" category includes such services as personal financial planning and investment management. A further breakdown of data by firm size indicated that larger firms (i.e. 20 or more employees) conduct a higher proportion of auditing and computing systems work.

Relative to the other industry groups the accounting industry provides a larger proportion of services to individuals (16%) and a lower proportion of services to government (8%, Exhibit 4.3.4). These data likely reflect the multiplicity of clients served in rural areas and the growth of the personal financial advisory market.

For firms responding to the survey, historical data indicate a decline in average full-time employment per firm from 21 in 1980 to 15 in 1986. The causes of this observed trend are unclear but likely attributable to two factors:

- moderate reduction in the size of established firms during the recession;
- some spin-off of small firms in latter years.

The potential for reporting bias also exists given the significant attrition in numbers of reporting companies as one moves back in time.

4.3.2 Employment and Occupations

It is estimated from the survey that approximately 7,000 people were employed in the accounting and bookkeeping industry in Alberta as of December 1986. Part-time employment of about 3% of employees (Exhibit 4.3.5) is very low relative to the other industry groups surveyed however a trend towards more part-time employment in the industry is similar to what has been observed in the other industries surveyed. The use of subcontractors is very low (14% of firms).

EXHIBIT 4.3.3
Services Provided (%)

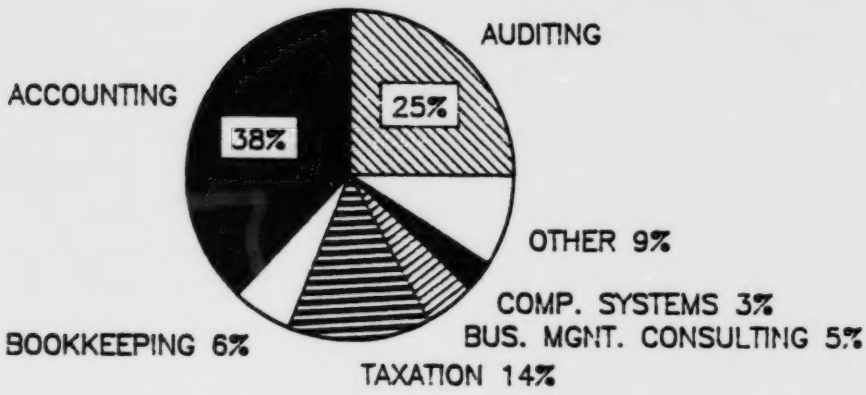


EXHIBIT 4.3.4
Clients Served (%)

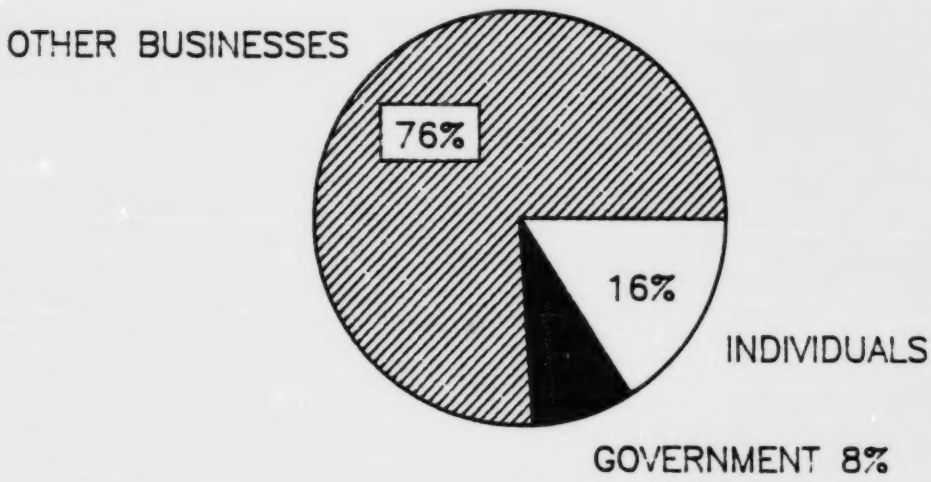


EXHIBIT 4.3.5
Employment: Full-Time/Part-Time
(%)

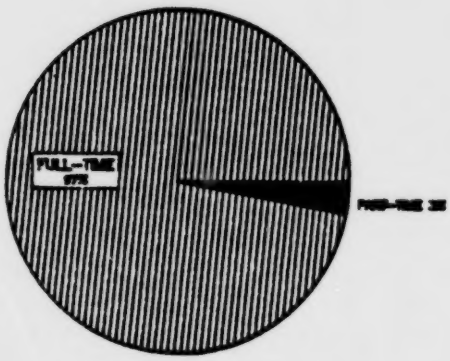
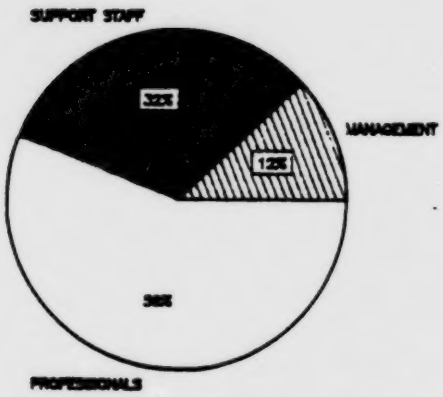


EXHIBIT 4.3.6
Occupational Status
(%)



The proportion of employees classified as professional (56%, Exhibit 4.3.6) in the industry is the greatest of all surveyed industries. The impression drawn from the data is one of concentrated full-time professional effort with minimal working contact with other supporting or complementary firms.

4.3.3 Industry Trends

Expected Employment Change

A relatively high proportion of survey respondents (59%, Exhibit 4.3.7) expected no change in employment over the next eighteen months (from early 1987). The industry evidenced a typical increase in optimism over the longer time frame of three years. A low proportion of the industry responded "don't know", perhaps reflecting the relative stability and predictability of the industry.

EXHIBIT 4.3.7
Expected Employment Change
Accounting & Bookkeeping (773)

Expected Market Growth

For those survey respondents who indicated an expected industry growth, the following market areas were the five most frequently cited as areas of growth:

- o computer accounting;
- o personal financial management;
- o taxation;
- o business management consulting;
- o general accounting.

It is notable that three of the five areas (computer accounting, personal services, and business management consulting) are new business areas currently contributing relatively small proportions of overall activity.

The growth in small business evidenced in most of the service sectors examined in this study provides an ongoing base of activity for the accounting profession.

Labour Supply/Demand Situation

Consistent with the above-noted areas of growth, survey respondents indicated expected shortages of labour skilled in computer-based accounting and personal financial management.

An ongoing need for experienced tax and audit personnel was highlighted by interviews. In general it was suggested that demand for accounting skills, particularly post-article personnel, exceeds supply.

Specialization and Diversification of Services

The accounting industry is responding to the increasingly specialized needs of industry. The tax, accounting, legal and financial management aspects of specific industry groups (e.g. real estate, oil and gas, professional services) are becoming increasingly unique, thus, demanding specialized services.

It was also noted that clients are becoming increasingly knowledgeable and sophisticated in their demands for services. In order to broaden their base of business, accountants are seeking a wider range of services including:

- o course development and delivery, i.e. business "self-help";
- o assistance in identifying, obtaining and managing government grants and subsidies;
- o information systems development and personal computer applications;
- o comprehensive auditing - a multidisciplinary approach to assessing organizations.

Increased Competition

The downturn in the Alberta economy experienced between 1984 and 1987 has led to intensive competition amongst accountants and greater cost consciousness amongst clients. Traditional client loyalties gave way to increased tendering and rate cutting. The large national firms established small business practices and began competing with small to medium sized accounting firms. With fewer new small businesses starting up there was increased

pressure to acquire existing businesses as clients. Greater emphasis must now be placed on marketing and on seeking new services.

This trend will likely continue as a permanent feature of the industry.

Computerization

A wide range of packaged and custom build software systems are now available to streamline accounting, auditing, financial analysis functions. Generalized bookkeeping packages are now being widely utilized by small business on microcomputers. Computerization of these functions has, and will continue to have both positive and negative effects on the accounting industry.

On the positive side there are opportunities for accountants in the following areas:

- development and sales of package and custom designed software (i.e. for specialty applications);
- provision of advice and training to clients on the purchase and use of computerized accounting systems;
- simplification of internal operations and increases in productivity.

On the negative side there will be less of a market for supplying bookkeeping review and reconciliation services to clients, particularly small businesses. Auditing and accounting functions for businesses using computer systems will be simplified, therefore, generating less revenue.

Tax Reform

The initial impact of tax reform on the accounting industry will likely be positive as businesses and individuals seek assistance in adjusting to the new rules. In the medium term, however, the simplified reporting system may lead to a reduced tax-related workload for accountants.

4.3.4 Issues and Suggested Initiatives

Training Requirements and Support for Training

Survey respondents generally felt that the training needs of the profession were adequately being met by existing educational institutions and professional associations. The comment was commonly made that in-house, on-the-job training was invaluable and should be supported by the provision of wage subsidies from government. Rural practitioners cited inaccessibility of educational facilities as a key barrier to training. It is noteworthy however that the most frequent comments made (i.e. over one-third of responses) stated that there were no barriers to training and that no special government training initiatives were required. A common comment amongst those who suggested initiatives was that there should be stricter business practice standards and regulations established for the accounting industry.

Government Programs

The point was made that several recent government programs have generated business for the accounting industry. The examples given include the Small Business Equity Program and the Alberta Stock Savings Plan. It was suggested that the contribution of accountants and the mutual benefits derived by the accounting

industry and users of these programs need to be recognized. Particular support was expressed for the Small Business Equity Program.

4.4 Advertising Services (774)

4.4 Advertising Services (774)

The advertising services industry is defined as to include those establishments primarily engaged in operating advertising agencies, acting as media representatives; renting space on outdoor displays and billboards; and providing other advertising services.

The industry in Canada as a whole generated $6.5 billion in gross advertising revenues in 1985, accounting for 1.44% of Gross National Product.* Of the $6.5 billion, an overwhelmingly large proportion, 93.8% ($6.09 billion), went to media advertising, and only 6.2% ($403 million) went to advertising agencies. The media advertising revenues comprised $1.5 billion from daily newspaper advertising, $1.37 billion from catalogue and direct mail, $1.61 billion from television and radio advertising, and $1.61 billion from other forms of media advertising.

The growth of the advertising industry historically has closely followed that of the general economy. Between 1965 and 1985, the share of the gross national advertising revenues of the Gross National Product in Canada remained fairly constant, ranging from 1.24% to 1.44%. The advertising industry suffered a proportionate setback during the economic recession in the early 1980's. The industry in Canada as a whole started to revive in 1984, following the general economy. In 1985, growth in the advertising industry in real terms was estimated to be similar to the national economy, at 4 percent.

No information is available on Alberta's share of the national advertising revenues. However, based on DRIE's 1984 estimates on the number of establishments in the province, Alberta's 297 estab-

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* Maclean Hunter. 1986. Advertising Revenues in Canada.

lishments probably comprised approximately 10 to 11 percent of the national total. Ontario, with an estimated 1266 establishments in 1983*, appears to comprise the largest share (about 48 percent).

Unlike Ontario and the nation as a whole, Alberta has not yet completely revived from the recession. The advertising industry in Alberta, being closely tied to the provincial economy, suffered corresponding setbacks in the first half of the 1980's. Our survey estimated that there were 215 establishments in the advertising industry in the province of Alberta as of December 1986. Although based on different data sources, this number is smaller than the DRIE's estimate of 297 establishments for 1984, suggesting that the industry might not have yet recovered from its downturn. However, total employment is estimated in this survey to be 1,442 people as compared to the 1984 DRIE estimate of 936 FYE's. Ninety-one out of the 104 firms surveyed also provided 1984 employment information and these firms showed an increase in average firm size of 5.5 employees to 7.7 employees per firm. This change in average size explains most of the differences between the two employment estimates and is accounted for primarily by the rapid growth of three firms, two of which added about 35 employees each and one which added 120 from a 1984 base of less than 20 employees. Fifty-five percent of the firms showed no employment change and ten percent declined in size.

According to our interviews with selected advertising firms, there appeared to be a move of the industry in Alberta towards firms providing more generalized services in the past few years. This corresponds to the increase in average number of employees per firm although the average firm size is still very small, well under 10 employees per firm. Amalgamating in order to have the capabilities

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* Ontario Ministry of Treasury and Economics. 1986. Ontario Study of the Service Sector, Background Papers.

to provide a broad range of services to a variety of clients has enabled some firms to survive the recession. Correspondingly, there has been a reduction in the number of specialist advertising agencies.

The majority (86%) of the advertising establishments are located in the province's two largest cities, Calgary (49%) and Edmonton (37%). Red Deer has five percent of the province's advertising establishments. The remainder are located in smaller population centres. The Calgary-based firms' client base is oriented toward the private sector, including corporate accounts from the oil and gas industry, while the the provincial government is a major client of Edmonton-based firms.

The advertising industry in Alberta is heavily represented by small size firms, firms with less than 10 employees. There are only two large firms in all of Alberta with about 160 employees each, and 10 to 15 medium size firms with 20 to 70 employees each. The remainder are small independents. As a general rule, large government and corporate firms which require full-service advertising tend to be serviced by the large advertising firms, while clients of small town advertising agencies tend to be small, local businesses themselves.

The advertising industry in Alberta is represented by the following main services groups:

- o advertising sales
- o outdoor display
- o graphic design and publishing
- o media representatives

Unlike its counterpart industry in Ontario, the advertising industry in Alberta primarily services the provincial market. Large, multinational accounts tend to go to the multinational advertising firms in Ontario and the U.S. It is anticipated that there will be stronger competition from the U.S. advertising industry in the Canadian market and that this competition will negatively affect Canadian firms.* Alberta's advertising industry will find it even harder to break into the national and international markets in the future.

4.4.1 Industry Status

As disussed earlier, our survey estimated that there were about 215 advertising establishments in Alberta as of December 1986. Only about seventeen firms or less than 20% have more than 20 employees. The average firm size was 7.5 employees. This is the second smallest average firm size among the eight industry groups in the business services sector.

Exhibit 4.4.1 shows that the majority (62%) of the firms we surveyed have operated in Alberta for over 5 years. About 32% of the firms have been in business between 3 to 5 years, and only 10% of the firms have been in operation for 2 years of less. These statistics suggest that there have been relatively few new entries in the industry during the last two years.

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* Ibid

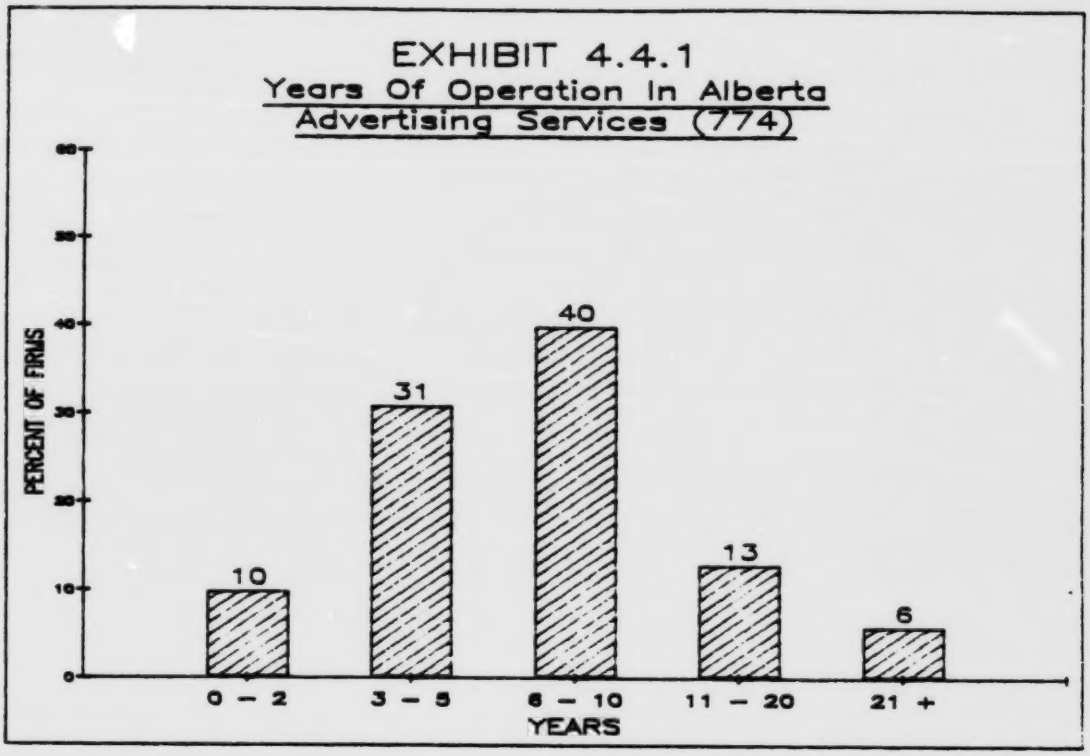


Exhibit 4.4.2 shows the percentage distribution of services provided by the advertising industry in Alberta. The major concentration of effort (56%) was in advertising/sales. Outdoor display, media representative and direct mail comprised relatively small portions of the industry, being 8%, 4% and 3%, respectively, and these were provided exclusively by the smaller firms. The remaining 29% of the industry efforts were in various other types of advertising.

Exhibit 4.4.3 presents the percentage breakdown of the client base in the industry. The majority (83%) of the clients served by the advertising industry were other businesses. Government and individuals constituted 10% and 7%, respectively.

EXHIBIT 4.4.2
Services Provided (%)

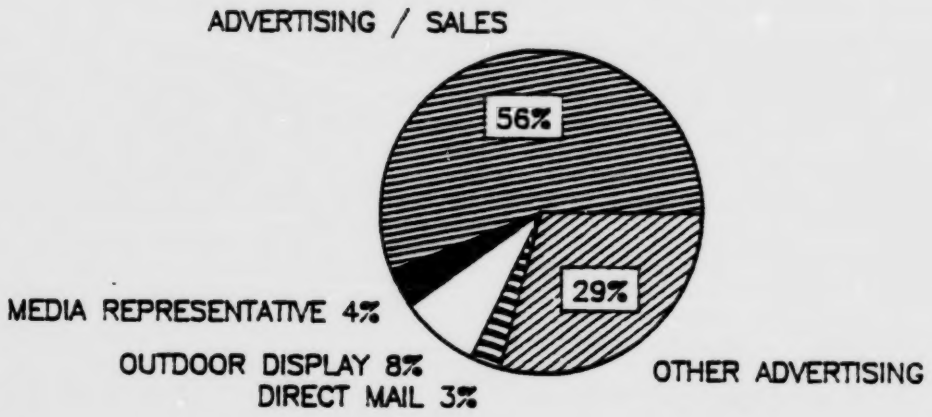
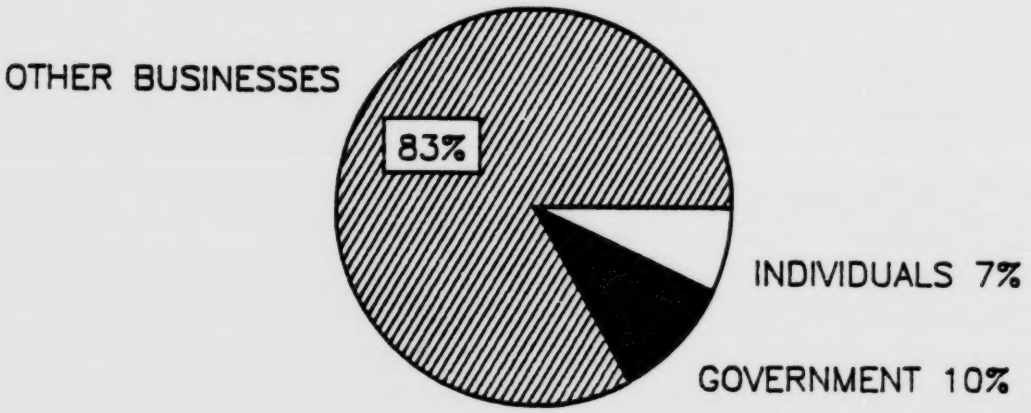


EXHIBIT 4.4.3
Clients Served (%)



4.4.2 Employment and Occupations

It is estimated that the advertising industry in Alberta employs approximately 1400 persons. About 66% are full-time employees and 34% are part-time employees as of December 1986 (Exhibit 4.4.4). The historical employment pattern shows less than 17% part-time employment in December of 1980, 1982 and 1984. This dramatic increase in the use of part-time employees is not an indication of an underutilization of skills during a recessionary period but rather is accounted for by the three very rapidly growing firms mentioned earlier. Two of the three firms utilize almost exclusively part-time personnel in serving their particular market niches.

Unlike the professionally accredited business services industries, the advertising industry employed proportionately fewer professionals and more support staff. According to our survey findings, approximately 16% of the advertising personnel in Alberta in 1986 were designated as professionals (as compared to 40% in legal services or 56% in accounting and bookkeeping), and 66% were designed as support staff (as compared to 45% in computer and related services or 32% in accounting and bookkeeping). Moreover, the advertising industry has the highest proportion of management staff (18%) when compared to the other seven industry groups. This is primarily a function of the small size of the firms. Exhibit 4.4.5 presents the occupational status breakdown of the industry.

The advertising industry also has the highest proportion (58%) of its firms using subcontractors, when compared to the other 7 industries.

EXHIBIT 4.4.4
Employment: Full-Time/Part-Time
(%)

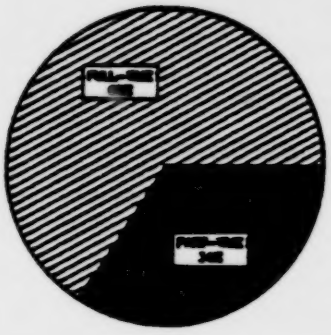
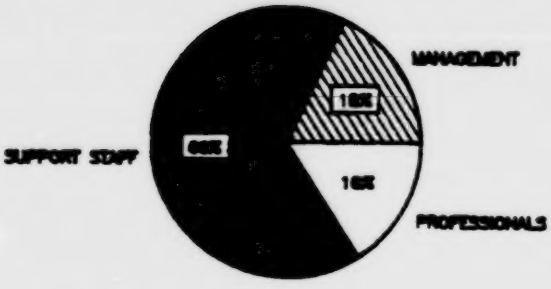


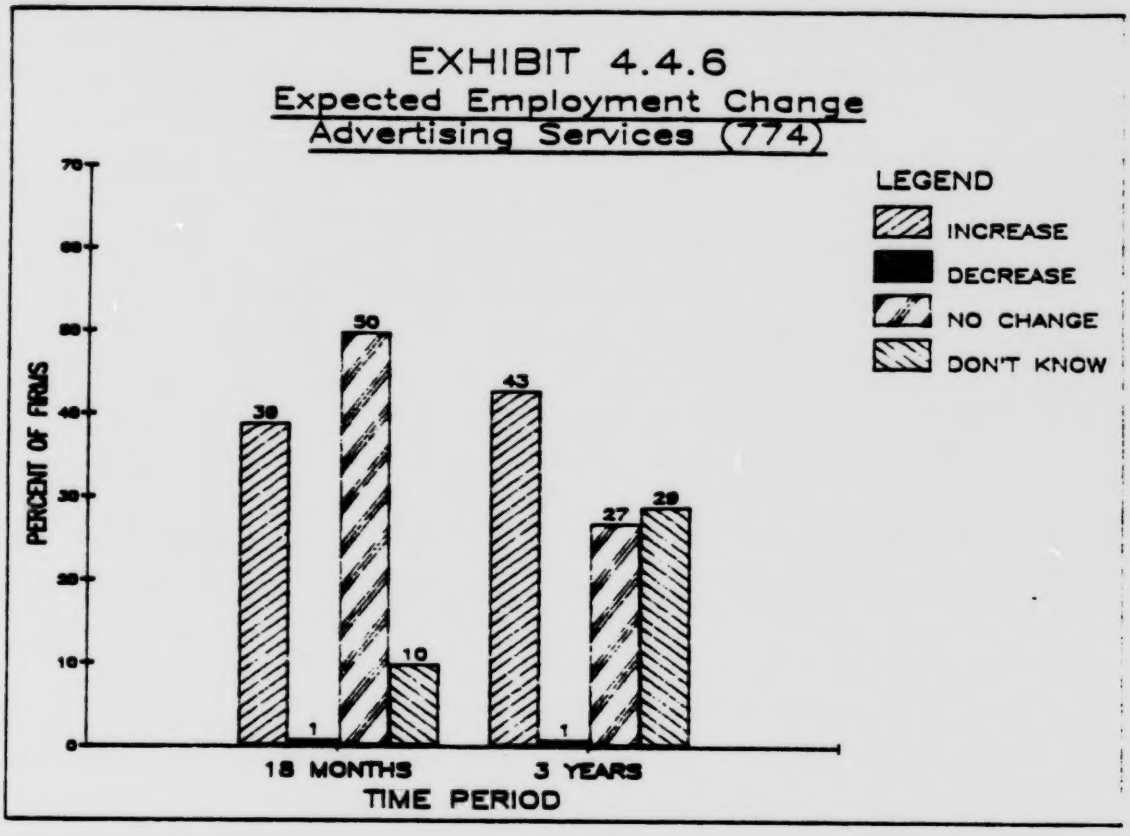
EXHIBIT 4.4.5
Occupational Status
(%)



4.4.3 Industry Trends

Expected Employment Change

Our survey asked the participating firms to project the change in employment in their firms over the next 18 months and 3 years. In the advertising industry about 50% of the responding firms expected no change in employment in their firms over the next 18 months. Approximately 34% and 32% expected employment increases in 18 months and in 3 years respectively. About 7% and 5% expected employment reduction over the next 18 months and 3 years respectively. The industry is less certain about its employment situation in 3 years than in 18 months, as proportionally more firms responded "don't know" to their employment change in the next 3 years (29%) than in the next 18 months (10%). These proportions are reasonably consistent with actual experience over the last two years. When compared to the other business services industries, the advertising industry indicated moderate optimism toward employment growth. Exhibit 4.4.6 presents our survey findings on expected employment change as projected by participating firms.



Industry Outlook

The economic downturn in the last few years has created turmoil in the advertising industry. Some advertising firms have ceased operation and others consolidated. The growth in advertising agencies has been in those firms oriented to general retail accounts rather than to the specialized corporate accounts which some national firms had established themselves in Calgary to service for example, oil & gas. There have also been some very successful firms which have identified new market niches and grown rapidly.

The market place is generally divided into two groups: large firms involved with big media campaigns; and small to middle size businesses working on a project basis. The demand for services is increasing in the latter and, as a rule, the smaller agencies tend to be servicing the needs of small businesses. Large firms, which during good economic times had yearly budgets approved for advertising campaigns, are now purchasing advertising services much more on a project by project basis.

There is also a trend towards the development of 1 to 2 person firms acting as consultants, but they do not provide a range of in-house services and many do not last too long in business.

Expected Market Growth

About two-thirds of the advertising firms interviewed expected some growth in the industry in the next three years. Among the top five expected growth areas are computer graphics/publishing, general promotion/production, television/video and media marketing, typsetting/graphics and sales. Manpower shortages were expected mainly in the highly skilled and experienced categories, particularly in the computer graphics, consulting, management, research and artistic direction areas. Good all-round marketing personnel are always in high demand.

Key Factors Affecting Employment Trends

Competition for services has increased significantly with companies demanding higher quality and greater depth of service. Clients are looking for smarter ways to spend their money. They demand more sophisticated approaches and plans based on solid research and strategic thinking.

Computer-driven technology is affecting almost all areas of advertising e.g. accounting, production, media, graphics design and desk top publishing, and is requiring the retraining of existing personnel. Familiarity with computers and their capabilities is also a must for students and recent graduates.

The costs of computer equipment are decreasing, making them more accessible, and the provision of computer-based services affordable to many more businesses. Respondents in our survey indicated that computer technology, if marketed properly, will increase the amount of work available (e.g. newsletters), and create more work. It will open up advertising services to many businesses which previously could not afford them.

Another significant change in the market place affecting the advertising industry is the increase in high technology companies in the province. In the last 5 years, over 200 new high technology companies have developed in Alberta. These companies are oriented to the international market place and need to know how to market their products in this environment. The Alberta government has committed millions of dollars to the technical infrastructure of the high technology industry in the province, but according to our respondents in the survey, the government did not place equal significance in the marketing of these products. High-tech marketing will likely be an important growth area to the advertising industry in the next decade.

In sum, the challenge in the advertising industry in the future is a need to develop an understanding of the application of computer technology, and of high-tech marketing and international marketing techniques. There will be a definite need for trained and experienced manpower to service these growth areas of the industry.

Critical Skill Areas

According to our survey, there is generally no shortage in intermediate and entry-level manpower in the industry, but firms are having difficulty in finding experienced and highly skilled personnel. Companies tend to recruit experienced personnel away from other firms in the province. Also, in the last five years, experienced, senior people have been recruited from other provinces to meet the demand.

Personnel in high demand include quality service-minded generalists experienced in strategic planning and capable of detailed, disciplined work. Both experienced and new personnel skilled in computer-driven technology; creative writers; qualified sales people trained in advertising; and advertising personnel with good marketing and business skills are also in short supply.

Another critical skill area identified was the ability to use "syntax scanners" for the production of films. These are common in Toronto, but none exist in Alberta.

Required Training

Our survey found that at least half of the respondents felt that training of one form or another will be required to meet the demand of the expected growth areas. While classroom type training for a variety of skills was suggested by the majority of respondents, practical experience and on-the-job training are still considered the most important ways to acquire the necessary skills to perform a job well.

For the classroom type training, the following areas have been identified:

- o training in sales and marketing
- o arts/graphic arts
- o computer-application in advertising/computer graphics
- o film production/broadcasting
- o assembly skills
- o editorial
- o secretarial

4.4.4 Issues and Suggested Initiatives

According to our survey findings, over 68% of the firms interviewed had some form of difficulty in providing training to their employees. The most frequently cited difficulties were cost, lack of time and lack of resources. Less frequently mentioned difficulties include lack of motivation from employees, inaccessibility to training programs and lack of information about available training programs.

About 62% of the firms interviewed felt that provincial government training initiatives should be provided to overcome the current training problems, although about a quarter of the firms in the survey preferred no government initiatives or involvement.

Furthermore, over 53% of the firms interviewed would like to see the provincial government undertake some employment enhancement initiatives specifically targetted to the advertising industry.

The issues relating to training and employment enhancement of the advertising industry can be summarized as follows:

- The post-secondary school training provided in marketing, journalism and art school programs is considered to be generally good. However, these programs could place more emphasis on business skills and analytical/problem solving skills.

- Some of the existing training programs are good but generally, they tend to be entry level programs. More programs aimed at upgrading skills of existing practitioners are required. For example, training of graphic artists on computer technology is becoming very important in order to maintain a competitive edge.

- Many excellent government programs exist but they are not well advertised or are poorly presented. Consequently, employers who could make good use of them are often not aware of their existence. One industry respondent indicated that they obtained the information about current programs through a paid consultant.

- Ongoing professional training is difficult to acquire in Alberta. This makes it difficult to attract good people to Alberta. In Eastern Canada, the Canadian Advertising Association sponsors a "Certified Advertising Agency Practitioner" (C.A.A.P.) course for professional upgrading of advertising professionals. This 3 year course is taught by senior people from the industry and is oriented to full time advertising practitioners. This course is not offered in the West. Consequently, there is a serious gap in training programs available for junior practitioners in the province.

Moreover, existing college programs in the province are not oriented to industry requirements and staff are not leading-edge practitioners.

Presently, the Advertising Association of Alberta has approached Mount Royal College in Calgary to set up an advanced two year credit program. In addition, a C.A.A.P. course for B.C. and Alberta for upgrading of personnel is being investigated. Thus this problem may at least be partially resolved in the next few years.

- Currently, one criterion for qualification in the provincial government's wage subsidy programs is that a trainee must have been unemployed for several months prior to being hired on a wage-subsidized job. Another criterion is that the trainee must have been an Alberta resident for at least 3 years. These two eligibility criteria impose limitations on employers. The residency requirement in particular makes it difficult for employers to recruit good people. *

- As one of the largest clients using advertising services, the provincial government can have considerable influence on employment in this industry in the province. There is some concerns in the industry that political interference in the awarding of government contracts and preference for "the lowest bid" have created barriers to the promotion of high standards in the industry.

While the majority of advertising firms have functioned without the use of government training and other wage subsidy programs, a number of them are starting to utilize available training funds. The following suggestions were made with respect to

* The residency requirement was reduced to 6 months while the survey was in progress.

actions the government could undertake to enhance the advertising industry. These are presented in order of priority, reflecting the level of interest expressed by the respondents in our survey.

Incentive Programs

Government should develop more financial incentive programs (e.g. direct training grants) to assist employers to recruit and train both skilled, unemployed workers and students graduating from relevant courses but lacking on-the-job experience and training. Government should explore making training programs more accessible to rural residents, encouraging apprenticeship-like programs and making more short-term upgrading courses available.

Small Business Marketing Assistance

Government should consider training for small businesses on how to advertise/market themselves. This would assist small businesses and indirectly, the advertising industry.

Courses

In consultation with Alberta Advanced Education, specialized courses could be developed to alleviate skill shortages in the following areas:

- sales (a certificate program should be developed);
- marketing skills for small businesses; and
- computer graphics.

For example, schools are not yet teaching computer graphics because of lack of resources. Funding could be made available to enable educational institutions to upgrade their programs in response to business requirements such as these.

Funding for High Technology Advertising

Alberta CD&E should consult with Alberta Economic Development and Trade about financial incentives for high technology companies and trade aimed at marketing their products internationally. Alberta Advanced Education should be consulted also about allocating funds towards the development of a special school program aimed at high technology marketing. A program could be developed in concert with existing companies such as IBM, Honeywell, etc. in order to utilize industry expertise.

Wage Subsidy Qualifying Criteria

Government should consider eliminating the requirement that someone be unemployed for several months before qualifying for wage subsidy programs. This current restriction makes it more difficult for small businesses to recruit and train the best people.

Also, the government should reassess the 3 year residency requirement for individuals before they can be hired on a wage subsidy program.*

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* Note: The residency requirement for most Alberta CD&E programs was reduced to six months in February 1987.

Promotion of Industry

Government, through consultation with various participating departments, should promote the Alberta advertising industry through making information about the industry more available to the different government departments, the public and other industries. The government could assist in organizing seminars or workshops on specific topics in the field, act as an information exchange agent for businesses in the industry.

Government Contracts

Government should use local advertising services wherever possible to encourage local employment.

Government Advertising

Government should market its assistance programs more actively and selectively (e.g. through trade journals and employer associations such as the Advertising Association of Alberta).

4.5 Architectural, Engineering, and Other Scientific and Technical Services (775)

4.5 Architectural, Engineering and Other Scientific and Technical Services (775)

This large and diverse industry group includes the following sub-elements:

- offices of architects - establishments primarily engaged in the planning and designing of buildings and structures.
- offices of engineers - establishments primarily engaged in various disciplines of consulting engineering; however establishments in which construction is the main source of revenue are excluded.
- other scientific and technical services - establishments providing services such as drafting, geophysical exploration, laboratory analyses, photogrammetry, seismography, surveying and urban planning.

National Perspective

After a decade of growth in real industry activity during the 1970's, the Canadian architectural and engineering industries have experienced stagnation and decline in real capital formation in domestic markets and increasing competition in export markets for services. The status of both industries has been reviewed from a national perspective in two recent reports for the federal Department of Regional Industrial Expansion.* Exhibit 4.5.1 summarizes some of the key observations made by the studies at the national level.

* "Managing in Difficult Times", Peter Barnard Associates, March 1985, and "Coming to Grips with Change", Peter Barnard Associates, February, 1985.

Exhibit 4.5.1

Summary of National Trends - Consulting Engineering and Architectural Industries

Consulting Engineering	Architecture
o substantial overall growth in number of firms (approximate 50% increase from 1,523 in 1978 to 2,236 in 1982)	o moderate growth in number of firms (approximate 15% increase from 1,283 in 1977 to 1,470 in 1982)
o proliferation of small firms as spin-offs from, or branches of, larger firms	o largest firms growing, mid-sized firms shrinking, growth in number of 1-3 person operations
o reduction in real value of fees in 1980's	o reduction in real value of fees in 1980's
o reduction in average employment per firm; reduction in regional differences in fee income and employment per firm	o reduction in average employment per firm
o increase in proportion of fee value accruing to Western Canadian firms over 1978 - 1982; severe decline in Western Canadian activity since 1984	o architects extending into new service areas; residential, industrial and institutional sectors in decline
o emergence of top 3 national firms (Lavalin, SNC, Monenco)	o dramatic increases (1980 to 1984) in architects claiming unemployment insurance
o Canadian firms are key players in world markets for engineering services	o no significant penetration of export markets

Source : "Managing in Difficult Times"

Both industries have been characterized over the last decade by cyclical fluctuation in the geographic concentration of construction activity, but more importantly there have been common overall trends in the 1980's towards reduced real levels of activity in domestic markets and towards proliferation of smaller firms.

Alberta Perspective

The reduction of activity was more severe in western Canada, and Alberta in particular than in other areas. The history of the engineering consulting industry in Alberta is highlighted by the change from a dependency on external skills (e.g. U.S. and Eastern Canada) in the 1950's to a mature, diverse and technically sophisticated indigenous industry by 1980. The capabilities of the industry in Alberta are said to have peaked at about that time.

Exhibit 4.5.2 presents data on annual gross domestic product, in real terms, for the period 1967 to 1985. Construction activity was relatively stable up to 1974/75 after which, under the stimulus of rising energy commodity prices, there was a greater than two-fold increase in activity through to 1979/80/81, followed by a series of reductions in capital investment attributed to diversion of oil and gas activity elsewhere in Canada, reduced primary commodity prices, and provincial government fiscal restraint.

It is particularly notable that 44% of engineering, architectural and other scientific firms responding to this survey indicated a decline in employment between 1984 and 1986, as compared to a maximum percentage of 22% of firms in the other sectors surveyed (Exhibit 3.4).

The most recent comprehensive national survey data for the architectural and engineering services industries are for 1982 and therefore do not reflect the retrenchment in Alberta of both

Exhibit 4.5.2

Gross Domestic Product - Construction Sectors, Alberta
(in millions of constant 1971 dollars)

	Non-Residential	Residential
1967	1,134	252
68	1,144	341
69	1,144	423
1970	1,225	337
71	1,125	491
72	1,151	511
73	1,249	530
74	1,354	539
1975	1,694	538
76	1,794	811
77	2,087	803
78	2,249	1,014
79	2,784	1,046
1980	3,545	934
81	4,101	960
82	3,876	761
83	2,824	547
84	2,545	320
1985	2,913	362

industry groups since that date. The data (Exhibit 4.5.3) do, however, provide a snap shot of the relative size of the Alberta-based industries at a time of near peak activity in Alberta. As of 1982, approximately 13% of architectural firms were located in Alberta accounting for about 21% of fee income. At that time Alberta ranked second, after Ontario, in terms of the income. Also, as of 1982, approximately 24% of engineering firms were located in Alberta, accounting for 19% of national fee income, placing the province second in terms of number of firms and third after Ontario and Quebec in terms of the income.

The data also illustrates the relatively high concentration of other scientific and technical business service activity that takes place in Alberta. Twenty-nine percent of firms in this category were located in Alberta as of 1982 accounting for one-third of national revenues. The majority of employment in the group is classified as surveying, which may include the sizeable workforce employed in geophysical survey work.

Data from the survey indicate that 64% of Alberta firms in the architectural, engineering and other scientific and technical services group reported a Calgary office location versus only 22% in Edmonton. This concentration in Calgary exceeded all other industry groups surveyed. Whereas both cities have local and regionally oriented firms providing services in core disciplines (e.g. civil, mechanical, electrical) Calgary has an additional concentration of firms providing a wide range of specialized engineering services to the oil, gas and petrochemical industries.

The importance of the oil and gas sector is exemplified by the fact that fully one-third of all engineering fee income received by Alberta firms in 1982 was from that sector.

Exhibit 4.5.3

Summary Data 1982 - Architecture, Engineering and Other

	Architecture			Engineer			Other Scientific and Technical		
	Canada	Alberta	%	Canada	Alberta	%	Canada	Alberta	%
Number of Firms	1,470	185	(13)	2,236	537	(24)	2,470	716	(29)
Employment*	8,170	1,280	(16)	39,736	7,156	(18)	20,226	5,469	(27)
Total Fee Income** ($ million)	469	97	(21)	2,228	416	(19)	1,099	363	(33)

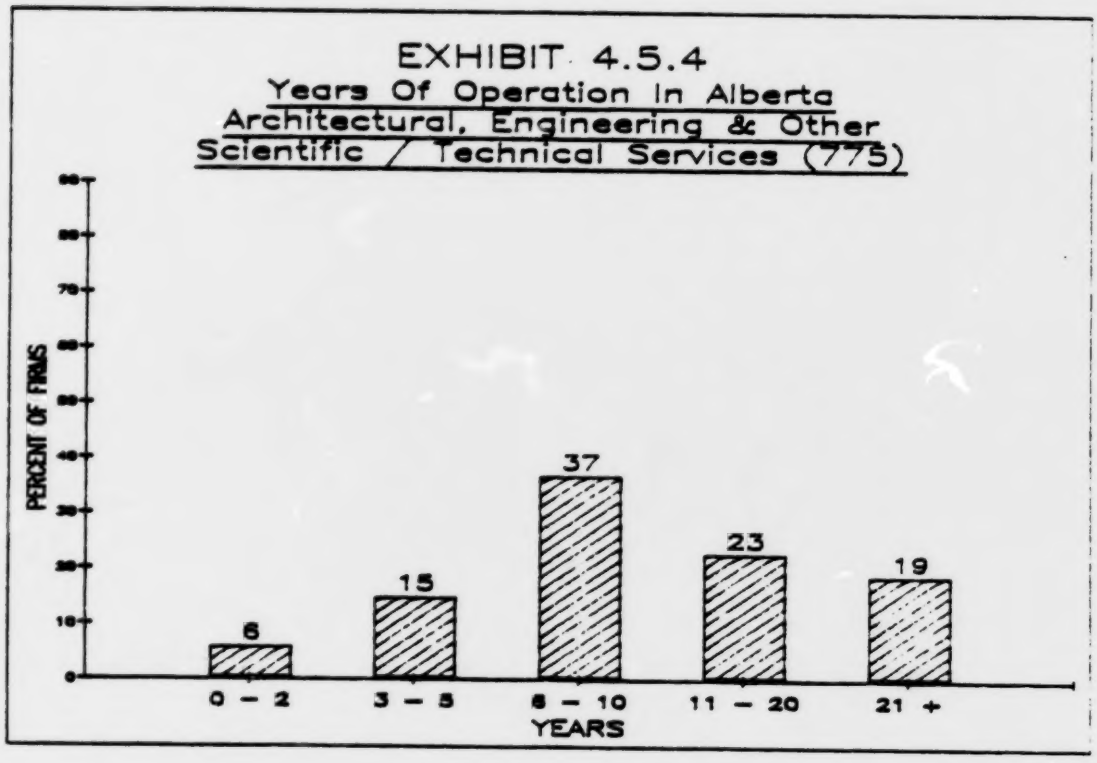
Source: Statistics Canada Catalogue 63-537, 1982.

* includes paid employees and working proprietors
** total operating revenue for other scientific and technical

4.5.1 Industry Status

Based on the results of this survey it is estimated that there are approximately 2300 firms in Alberta, as of December 1986, which are primarily engaged in the provision of architectural, engineering and other scientific and technical services. This value compares with the 1982 Statistics Canada estimate of 1438 and the DRIE 1984 estimate of 2941 firms. The survey further indicates that 87% of firms reported having less than twenty employees.

Exhibit 4.5.4 shows that only 21% of firms have been in operation for less than five years, a proportion that is the lowest of all industry groups surveyed. Conversely, 19% of



firms have been in operation for more than twenty years, a figure which is comparable to the accounting and legal industries. These data suggest a relatively stable pool of firms, relative to such growth industries as computer services. Survey respondents indicated that, overall, about 82% of business was conducted for other businesses, (Exhibit 4.5.5) a proportion which is high when compared to other industries surveyed.

Respondents in these industry groups were not asked to estimate the proportion of services provided by type of service due to the complexity of services and projects conducted. A concurrent study being conducted by the Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA) in conjuction with Alberta Career Development and Employment will provide information on services provided by this professional group. Statistics Canada provides a breakdown of engineering fee income by project sector (Exhibit 4.5.6) which illustrates the scope and magnitude of work carried out in the province as

EXHIBIT 4.5.5
Clients Served (%)

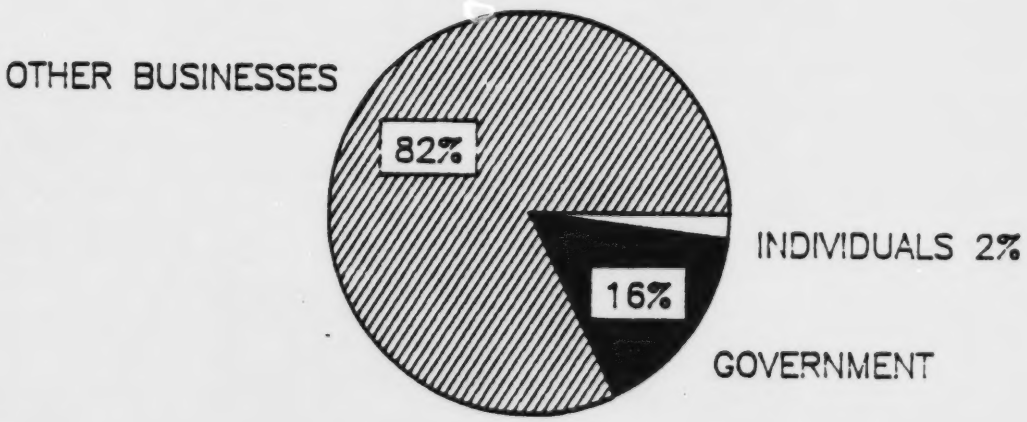


Exhibit 4.5.6

Fee Income from Canadian Projects of Alberta Consulting Engineering Firms 1982

Sector	Fee Income $ '000	% Earned in Province	% of Total Province	% of Canada Sector
Agriculture, fisheries, forestry forest products	2,363	76	0.6	3.1
Air and sea ports, harbours and terminals, coastal works	3,025	70	0.8	3.5
Bridges, tunnels, highways and railways	20,558	78	5.2	15.1
Buildings	59,089	89	15.0	19.5
Dams, irrigation and flood control	12,491	-	3.2	14.2
Plant process design	5,639	97	1.4	5.7
Mining and metallurgy	6,051	67	1.5	3.8
Municipal services	67,145	80	17.0	3.0
Petroleum and natural gas	131,128	92	33.3	59.3
Power generation, tranmission and distribution	5,757	85	1.5	3.6
Telecommunications	361	-	-	2.6
Misc./unspecified	80,506	-	20.4	28.0
			100.0	100.0
TOTAL	$394,113			

Source: Statistics Canada
Catalogue No. 63-537 1982

of that time. Although the mix of work by project sector can be expected to vary over time in relation to sectoral growth patterns, the importance of the petroleum and natural gas sector is highly evident.

For those firms responding to the survey, historical data indicates a substantial decline in average full-time employment per firm between 1980 and 1986 (from 42 employees per firm to 28 employees per firm - a 33% decrease). This decline is directly attributable to the declining capital investment over this period (see Exhibit 4.5.2).

4.5.2 Employment and Occupations

Total employment (December 1986) in the architectural, engineering and other scientific and technical industry group is estimated from this survey to be 31,100 persons, of whom nearly 22% were designated as part-time employees (Exhibit 4.5.7). The survey indicated that the proportion of part-time employees has risen steadily over time, from 12% in 1980, to 18% in 1984 and 22% in 1986. This trend was identified during the course of industry interviews as well and can be attributed to attempts by the industries to manage labour costs more closely. Although the estimate of total employment derived in this survey is substantially greater than that cited by DRIE (See Section 2.3), the DRIE data is expressed in full year equivalents and thus underestimates the number of persons employed. Relative to the other industry groups surveyed this group has a very high ratio of part-time employment. Use of subcontractors is prevalent with 45% of firms reporting such use. The industry also cited a higher degree of seasonality than other industry groups (i.e. a seasonal variation of 80% of peak employment). This may in part be explained by the outdoors nature of work in many of the

industry subgroups and linkages to seasonal construction schedules.

Thirty-four percent of employees were classed as professionals, nine percent as management and 57% as support staff (Exhibit 4.5.8). These proportions are fairly typical of the business service industries. One phenomenon described as occurring in small firms, particularly during economic downturns and with the advent of computer aids, is the substitution of professional staff for support staff.

Survey respondents were asked to provide a breakdown of professional employment by specialty area across the entire industry group (i.e. architectural, engineering and other). Exhibit 4.5.9 presents the resulting mix of professional job specialties.

EXHIBIT 4.5.7
Employment: Full-Time/Part-Time
(%)

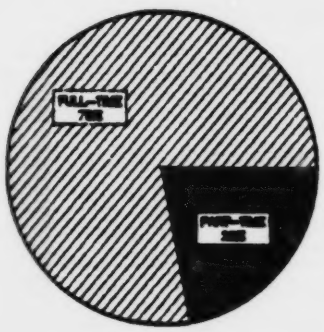


EXHIBIT 4.5.8
Occupational Status
(%)

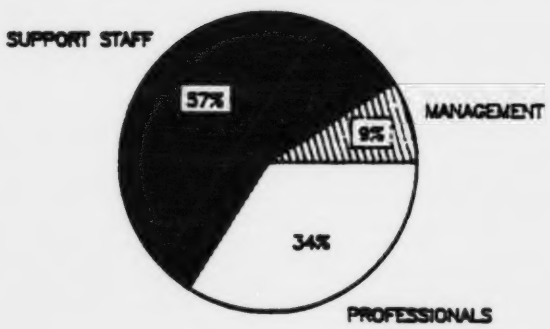


Exhibit 4.5.9

Architectural, Engineering & Other Scientific/Technical Services (775) - Distribution of Professional Staff by Specialty

Job Specialty	Number of Employees	Percentage Distribution	
		by Major Specialty	by Sub-Specialty
Architects	45	2	100
Engineers			
Agricultural	4		0
Chemical	43		3
Civil	430		29
Electrical	156		11
Geological	107		7
Mechanical	199		13
Mining	59		4
Metallurgical	11		1
Petroleum	284		19
Constr. Proj. Mgmt.	93		6
Other Engineers	99		7
Total	1,485	62	100
Other Sci. & Tech.			
Drafting	188		22
Lab Testing	109		13
Quantity Survey	10		1
Surveying	157		18
Urban Planning	23		3
Other Sci./Tech.	364		43
Total	851	36	100
Total	2,381	100	
N	206		

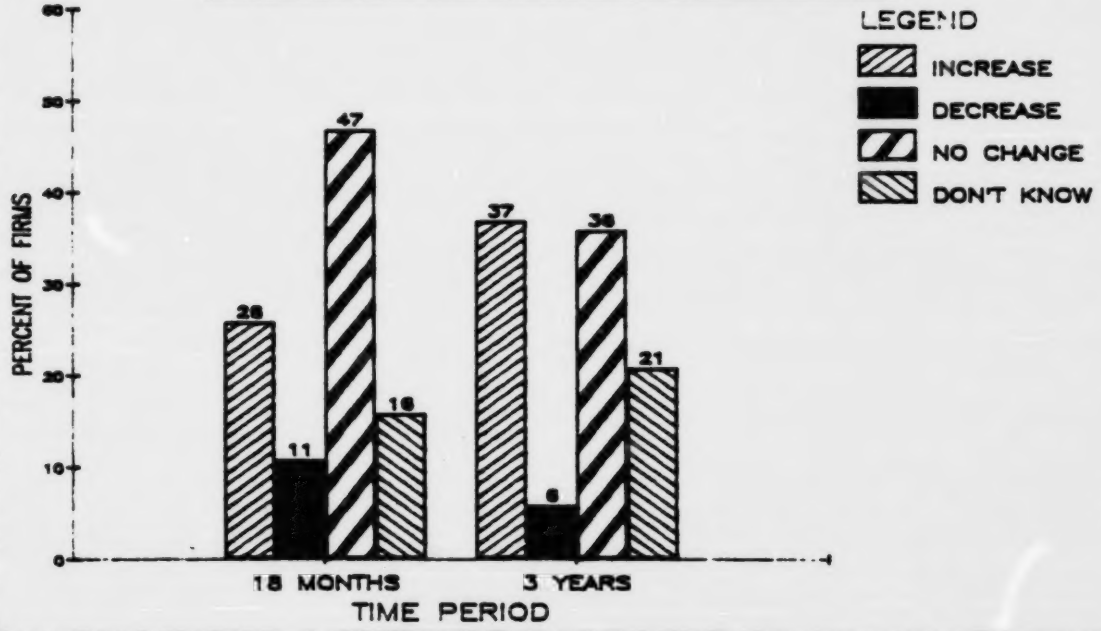
Note: N = Number of Firms Responding

4.5.3 Industry Trends

Expected Employment Change

Relatively high proportions of respondents in this industry indicated an expectation of decreased employment in the next eighteen months (11% of firms) or responded "don't know" (16% of firms). Thus, there is a higher degree of pessimism and uncertainty amongst firms in this group than evidenced for the other groups surveyed. (Exhibit 4.5.10). The predominant feeling for nearly one-half of firms was for no change in employment over the next eighteen months. As was typical with other groups both optimism and uncertainty increased as the time period of projects extended to three years.

EXHIBIT 4.5.10
Expected Employment Change
Architectural, Engineering & Other
Scientific/Technical Services (775)



Expected Market Growth

From the survey, the five most frequently cited areas of expected market growth over the next three years are:

- o computer drafting;
- o petroleum engineering;
- o computer applications;
- o municipal engineering;
- o surveying.

The first three areas individually account for between 28% and 17% of responses. The remaining categories were much less frequently suggested (3% of responses).

In the architectural industry, participants in the focus groups and interviews suggested the following niches of market growth:

- o energy conservation, building envelope design and interior air quality;
- o innovative housing with more targetted marketing of specific groups such as seniors;
- o renovation and refurbishment of aging commercial and retail space;
- o electronic computerized controls of building systems.

Within the industrial engineering field, a wide range of new market opportunities will be driven by technological and social change, including:

- o environmental protection systems;
- o computerized process controls and robotics;
- o staged projects rather than mega-projects;

- o more efficient transportation systems;
- o advanced energy systems;
- o biotechnologies.

Areas of unique competitive advantage to Alberta-based industrial engineering firms include heavy oil and oil sands recovery, natural gas processing, pipeline technologies, offshore oil recovery, irrigation engineering, coal mine development and coal processing and handling. Demand for engineering services in these areas is ultimately driven by growth or efficiency gains in the primary industry sectors or public demands for environmental controls.

Labour Supply/Demand Situation

The current condition in Alberta in the engineering and architectural fields is that there is an oversupply of skilled labour in almost all skill categories. In the past, shortages in highly specialized areas have been met by importing talent from the rest of Canada, from the U.S. or overseas. A few specialties were noted from the survey focus groups and interviews as being in short supply:

- o Engineering: computer drafting, selected petroleum engineering disciplines, computer applications, satellite technologies;

- o Architecture: architects with management and marketing skills, on-site construction managers, CAD/CAM skills.

The supply/demand relationships for engineering labour are discussed in more detail in "Realizing the Potential" prepared in 1982 by the Consultative Committee on the Canadian Consulting Engineering Industry (S.J. Cunliff, Chairman). The Canadian

Engineering Manpower Council now produces an annual manpower inventory as part of its function in manpower planning.

Technological Change

Technological change affects this industry group through changes in the tools by which it provides services (e.g. Computer-aided design and drafting (CADD), computerized project management) as well as through changes in the technologies of the facilities and products which the industry designs. Leading engineering companies are adept in the development and application of new technologies, both internally and externally.

Arguably, the most important single development affecting the internal operation of engineering and architectural firms is CADD. While this study received a variety of polarized comments on the usefulness and impacts of CADD, it is apparent that such systems will be increasingly adopted within all levels of the industry. Some key comments made with respect to CADD include:

- Systems are becoming more sophisticated in producing 3D views, elevations and cost estimates.

- Systems are becoming an integral part of facilities mapping and management functions.

- Elementary systems are becoming more accessible in cost but barriers still remain for acquisition by small firms; if sophisticated CADD capability becomes a standard requirement for bid eligibility, smaller firms may be excluded.

- Software development may make certain intermediate manual drafting tasks obsolete; technicians may be replaced by

professional engineers and architects creating working drawings directly.

- o CADD will never replace human design ingenuity and will always be an inventory and storage tool.

- o The provision of CADD data files to clients may lead to direct follow-up manipulation by the client rather than "call back" work.

It is not possible in the context of this study to review the full spectrum of opportunities and impacts which rapid technological change will lead to in these industries. The requirement to stay abreast of technological change has two key implications for the private sector:

- o first, that there be a close interaction between the private consulting engineering/architectural sector and the publicly funded R&D institutions; and

- o second, that corporate resources be made available to acquire the necessary "hardware" and skills to apply new technologies.

In the latter instance, the reduction in net consulting revenues associated with the recession in Alberta has inhibited the acquisition and maintenance of new technologies.

Changing Roles of Architects

During the course of this study a wide range of opinion and experience was expressed regarding significant, ongoing changes in the real and perceived roles of architects in the overall "building" business. The following key points were made:

- o increasingly, architects are moving from an engineering function to a design function; structural integrity is being left to structural engineers and technicians with mid-sized firms typically having a staff structural engineer;

- o increasingly, the "project manager" role is being filled by independent specialists as opposed to the lead architect; these specialists are often engineers with track records of cost consciousness. Construction management, quantity surveying, and contract management have emerged as autonomous businesses;

- o architectural firms, because of flat and declining markets for conventional services have had to diversify into such areas as space programming, interior design, residential construction contract administration, building feasibility analysis and real estate development.

Ongoing Fragmentation of Firms

It is expected that the trend towards smaller firms will continue.

This trend is emphasized during periods of economic duress with loosely knit consortia forming to fit the specific needs of given projects.

Markets for the services of the major integrated engineering - procurement - construction firms (EDC) are currently very limited and highly competitive in Western Canada. Severe employment cuts have been made by the ten or so major firms providing such services and, without increases in industrial engineering activity, it is likely that further reductions in

employment will be necessary. The point is made that unique skills and capabilities may be irretrievably lost should this occur (reference: position statements of the Alberta Engineering Contractors' Association).

4.5.4 Issues and Suggested Initiatives

Stimulation of Economic Activity

The point was frequently made by study contributors that the health of the engineering and architectural industry is ultimately determined by the level of general economic activity. The points were further made that government has key roles in:

- stimulating capital investment through tax, royalty and pricing avenues;
- equalizing construction activity over time by increasing public investment during periods of low private investment;
- encouraging continued privatization of government functions;
- dispersing public sector expenditures through division of contracts;
- encouraging exports of services and cooperation in R&D.

The most prevalent comment made was that governments should encourage major oil and gas industry investment through a variety of financial incentives. It is notable that a very small proportion of survey respondents indicated that no

employment enhancement initiatives from governments were required.

Marketing of Architectural Skills

It was suggested by study contributors that Alberta's architects could be more aggressive in marketing their skills both domestically in Canada and in export markets. At present the industry is almost entirely confined to activity in Alberta and could tap substantial external markets with the right effort. Key points in this regard include the following:

- o architects require training in market analysis and business development;
- o architects should become more familiar with government programs for export assistance;
- o questions of reciprocity of licensing amongst Canadian provinces are currently being addressed and can be overcome;
- o architects must undertake advertising programs as to the diverse services they provide and the benefits derived therefrom; the industry must seek new markets and services.

Training Requirements and Support for Training

The major barrier to training is the general downturn of the engineering and architectural industries in Alberta. Energies are focussed on maintaining the business or on down-sizing. Under these conditions employee training is a low priority.

Notwithstanding this condition, a number of suggestions for training support were made.

The small size of many architectural and engineering firms is a hindrance to acquiring training where location, time requirements and costs are prohibitive. Special consideration should be given to small firms in government support for training. Furthermore, it was suggested that training funds be made available to self-employed individuals - the category in which many architects and consulting engineers fall.

Special needs were identical for in-house training, particularly on CADD, and in management/marketing skills training both as part of university curricula and post-univerity programs.

In general it was stated that the technical institutes in Alberta were ably fulfilling the needs for support personnel.

It was suggested that government could provide financial assistance to the professional associations for the design and delivery of professional upgrading programs. Although hitherto these activities have been the sole responsibility of the associations, the economic downturn has severely affected their resources and continuing capability to sustain such activities.

Training in occupational safety was suggested a number of times as an appropriate and desirable program for government to deliver.

Cost of Liability Insurance

The rising costs and limited availability of liability insurance was noted as an additional encumbrance on architectural practitioners. It was suggested that governments consider

offering insurance with variable premiums by sector and time limits for claims. It was further suggested that governments could waive liability requirements on selected projects.

4.6 Legal Services (776)

4.6 Legal Services (776)

Legal services is defined as to include establishments primarily engaged in the provision of legal advice or legal services. Only those people who have been accredited by the Law Society of Alberta have the right to practice law in the Province. Legal firms cannot be structured as limited companies; the lawyer either as individuals or professional corporations, can operate as an individual, as an association of independent entities under a common name or as a partnership. Only lawyers can be the owners of legal firms and they can only practice in one province, although this latter requirement is currently being challenged in the courts.

The legal services industry has historically been one of the most stable services industries in Canada. In Alberta, the industry is by far much less negatively affected by the recession than most other business services industries in the province. Based on our survey results, six out of the eight surveyed industry groups appear to show a net loss in the number of establishments in the province in the last two years. The legal services industry is one of the only two industry groups that have shown a net gain, although the gain was relatively small, estimated to be less than 10 percent.

According to DRIE's estimates, the annualized growth rate in the number of firms in the legal services industry in Alberta between 1978 and 1984 has been moderate, estimated at 13%, as compared to the high of 34% in computer services and the low of 7% in architectural services. Currently, it is estimated that there are about 1600 legal services establishments in the province, roughly doubled that of a decade ago.

Another interesting phenomenon associated with the legal services industry in Alberta is that while there appears to be a general trend for most business services industries to show substantial changes in average firm size over the last few years, the average firm size in the legal services industry has remained relatively unchanged.

The legal services establishments in Alberta are heavily concentrated in the province's two largest cities, namely Edmonton, with 41% of the establishments, and Calgary, with 33% of the establishments. However, when compared to the other surveyed industry groups, the legal services industry is less dominated by Edmonton and Calgary. About 26% of the legal services establishments are located outside the two largest cities. Most of the other industry groups have 18% or less of their firms located outside of Calgary and Edmonton. Firms located in Calgary are oriented toward the oil and gas clients, while the Edmonton-based firms serve a more diverse client base.

The legal services industry is increasingly specialized. In addition to the traditional areas of specialization, emerging specialties such as international law and computer law are becoming more prominent in the industry. Nonetheless, in Alberta, the industry is largely represented by the following major areas of specialty:

- Civil Litigation
- Real Estate
- Corporate Law
- Commercial Law
- Criminal Law
- Family Law

During the recession years in Alberta, some segments of the industry witnessed a reduction in activity in such specialties as real estate and public finance while other segments of the industry have grown, such as debt-restructuring, corporate mergers and litigation. Overall, the level of output (services demanded) in the industry has been affected little by the recession.

4.6.1 Industry Status

Based on our survey, it is estimated that there were a total of 1608 legal services firms in the province of Alberta as of December 1986. Typical of the business services industry sector as a whole, the legal services industry is heavily represented by small size firms, firms with 20 or less employees. Only about 7% (106) of the 1608 legal services firms in the province have more than 20 employees, the same average percentage for the 8 surveyed industry groups as a whole. Also, similar to the other surveyed industry groups, almost all the large firms are located in Calgary and Edmonton. Almost all large firms deal with large corporate accounts.

Exhibit 4.6.1 shows that relatively fewer legal services firms (about 29%) were established within the last 5 years in Alberta, when compared to the other seven surveyed industry groups. About 71% of the firms have been in business for six years or longer; and about 18% have been in business for over 20 years. Only one other surveyed industry group (architectural, engineering and other scientific and technical services) proportionally has as many firms that have been in business longer than 20 years as the legal services industry. This is further indication of the relative stability of the legal services industry.

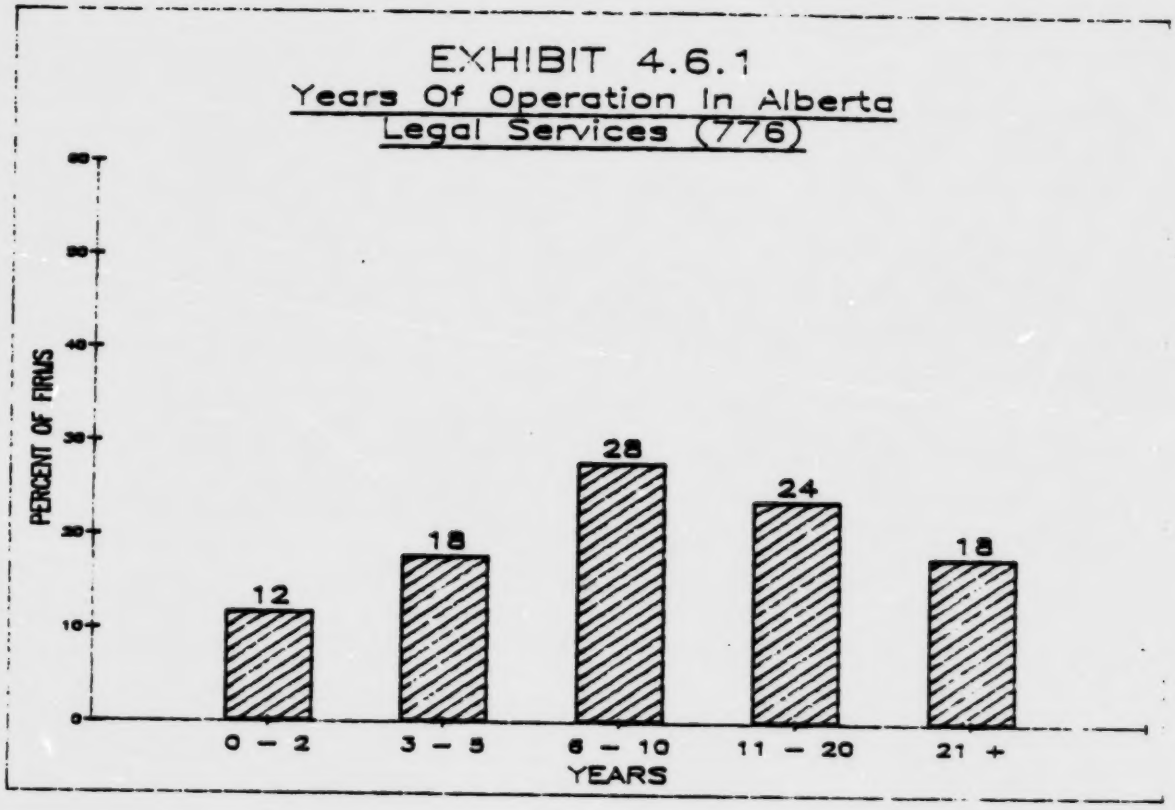


Exhibit 4.6.2 presents the percentage distribution of work performed by specialty area in the legal services industry. The legal services industry is characterized by a relatively large number of specialties. Within the industry, civil litigation and corporate law comprise the 2 largest segments, representing 24% and 20% of the services provided in this industry respectively. Other specialties include real estate, commercial law, family/divorce, wills/estates, criminal law, insolvency, taxation, labour/employment, and oil and gas law.

Exhibit 4.6.3 shows the percentage breakdown of clients served by the industry. Unlike all the other surveyed industry groups, the legal services industry serves a relatively large number of

EXHIBIT 4.6.2
Services Provided (%)

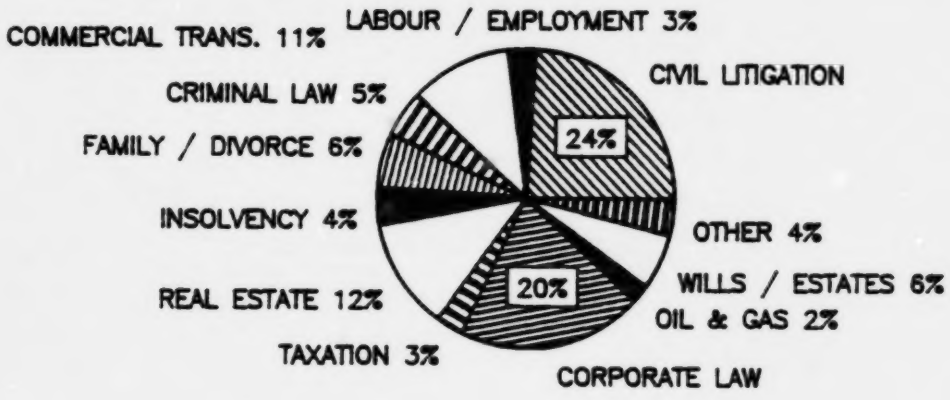
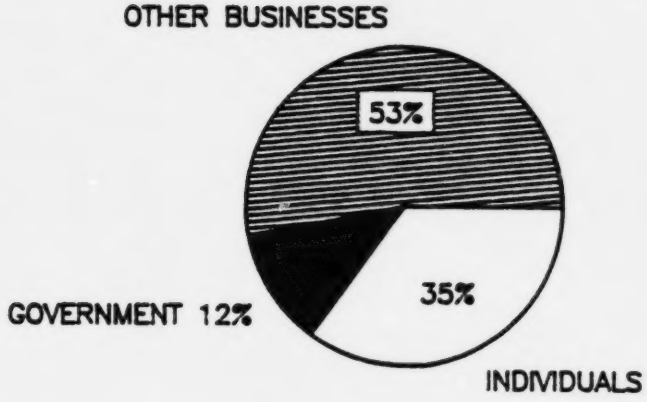


EXHIBIT 4.6.3
Clients Served (%)



individuals. Over 35% of the clients in this industry are individuals. Most of the other surveyed industry groups have less than 10%. Although other businesses is still the largest client group of the legal services industry (52%), its share of the total client base of the industry is the smallest among the eight surveyed industry groups.

As mentioned earlier, the legal services industry has maintained a relatively stable average firm size over the last few years. According to our survey, the historic employment pattern of the responding firms indicate a very small increase in average firm size, from 17 employees per firm in 1980 to 19 employees per firm in 1986.

Legal services firms are typically larger than firms engaged in computer services, accounting, advertising and management consulting, but smaller than personnel services firms and firms engaged in architectural/engineering/scientific and technical services.

4.6.2 Employment and Occupations

According to our survey, total employment of the legal services industry in Alberta is estimated to be about 12,300 persons as of December 1986. Although based on different data sources, this number suggests a more than 50% increase from the DRIE's 1984 estimate of about 8000 persons. The only other industries in our survey that appear to enjoy a higher rate of increase in total employment include advertising, and architectural and engineering services.

The legal services industry employs relatively few part-time workers. Only about 5% of the total employment in the industry in 1986 were part-time workers (Exhibit 4.6.4). It is estimated that the percentage of part-time workers in previous years may even be smaller. The legal services industry appears to be relatively slow in adopting the practice of the use of part-time workers or personnel on contract basis, a practice which has become more common among many other industries.

Exhibit 4.6.5 shows the occupational status breakdown of employment in the legal services industry. Typical of professionally accredited business services industries, approximately 40% of the employment in the legal services industry are designed as professionals. About 55% are designated as support staff, and only 5% are in management positions. Apart from the personnel services industry, the legal services industry appears to have proportionally the smallest group of management personnel among the eight surveyed industry groups.

EXHIBIT 4.6.4
Employment: Full-Time/Part-Time
(%)

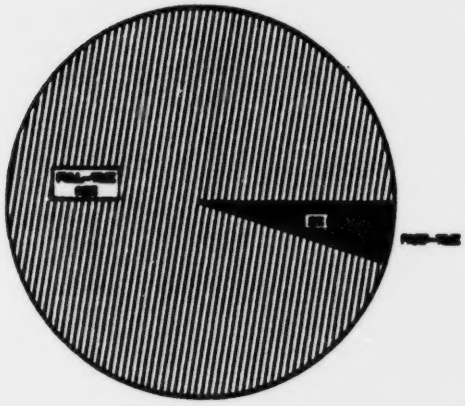
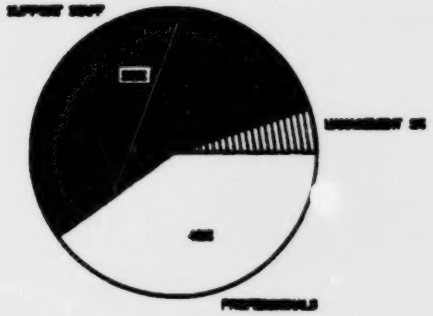


EXHIBIT 4.6.5
Occupational Status
(%)



The legal services industry reported minimal use of subcontractors. Only about 10% of the surveyed firms have used subcontractors. Most of the other surveyed industry groups reported higher levels of use.

4.6.3 Industry Trends

Expected Employment Change

Our survey asked respondents to project the expected change in employment in their firms during the next 18 months and 3 years. Compared to the other surveyed industry groups, the legal services industry showed moderate optimism toward employment changes. In the next 18 months, the majority of the respondents (60%) expected no change in employment. About 30% expected increase and 7% expected decrease. About 3% were uncertain. For the longer term (3-Year) projection, slightly more firms (37%) expected increase in employment, and slightly fewer firms (6%) expected decrease. More firms (7%) were uncertain. Exhibit 4.6.6 presents these findings.

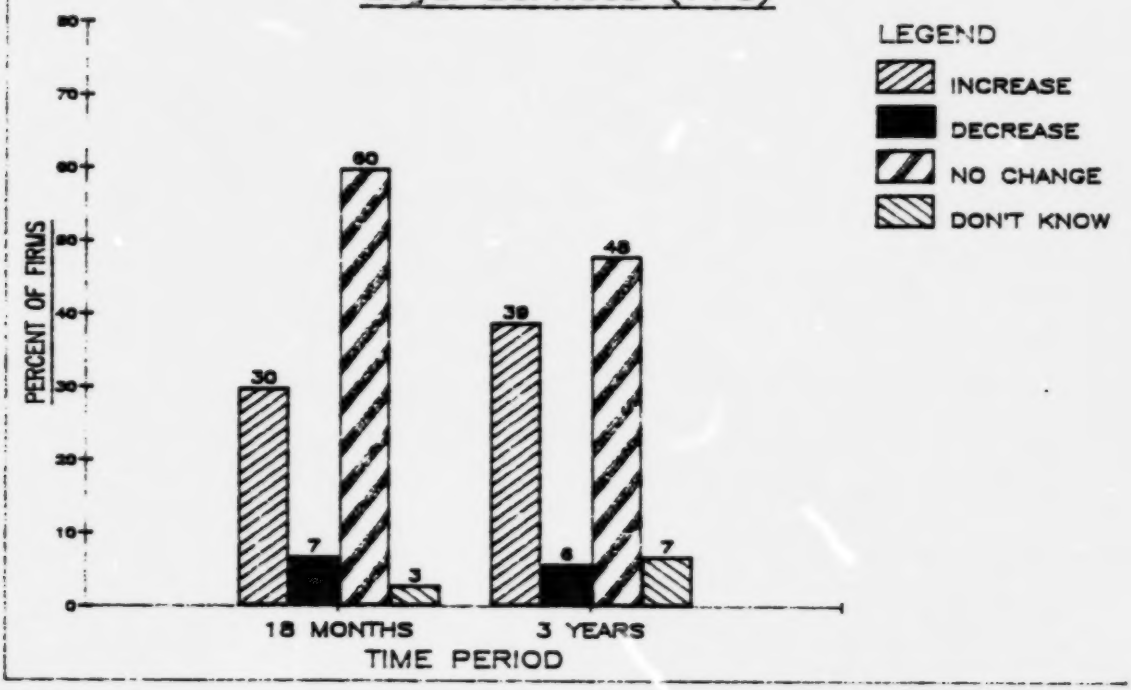
The main area of expected employment increase was in support staff. For professional positions, civil litigation was expected to be the major area of employment increase.

Industry Outlook

Discussions with industry representatives suggest that a number of trends are emerging in the legal services industry:

- There is increasing specialization within the legal profession.

EXHIBIT 4.6.6
Expected Employment Change
Legal Services (776)



- One of the effects of the recession is the increasing number of mergers among law firms, and between law firms and other complementary professional practices such as accounting firms.

- With the experience with the recession, many law firms are becoming more conscious of costs, and more cautious about over-expansion. Now, law firms are tending toward either the very large or the one-to-two person operations. The large firms have a larger client base to draw from by offering a diverse range of specialty services. The one-to-two person firms have low overhead costs.

- There is a trend toward establishing international offices and establishing offices in other provinces to enlarge the market base. A few large Calgary offices now have branches in London, Geneva, New York and Hong Kong. While a number of Alberta firms have an interest in merging with firms in central Canada, the mergers must await the Supreme Court of Canada rulings. If the rulings are favourable, more firms will find themselves compelled to align with an eastern counterpart in order to remain competitive.

- More companies and corporations have increased the use of in-house councils. In-house councils are also asked to take on more responsibilities; some of their work might have been contracted out to a law firm a few years ago.

- While there is some signs that the legal services industry is slowly adopting the use of computer technology, this change is still very minimal when compared to other industries. It is expected that the adoption of computer technology will continue to increase, though slowly, as more and more law firms' clients become computerized themselves.

Expected Market Growth

From our survey, the top five growth market areas cited are:

- Civil Litigation
- Real Estate Law
- Commercial Law
- Corporate Law
- General Law

Growth is also expected in almost all other areas in the legal services industry. A number of relatively new areas have been mentioned by our respondents to have growth potentials. These include international law, computer applications in law, and banking.

Critical Skill Areas

While about two-thirds of our survey responses expected growth in particular areas of the industry, fewer than 10% of these responses indicated that there would be shortage of manpower to meet the need.

Interviews with industry representatives revealed that there is a perceived over-supply of lawyers in Alberta, creating keen competition.

They pointed out that the shortages in manpower is in the paralegal and legal assistant categories. With the industry moving toward more specialization, expert lawyers with highly specialized knowledge are also in high demand. Examples include taxation law specialists and computer law specialists.

It is expected that with oil and gas prices beginning to climb, there will be a general upswing of activities in the legal services industry. Demand for lawyers in all types of practices will increase, particularly those in real estate law, oil and gas law, corporate law and commercial law.

Key Factors Affecting Employment Trends

Since a person must be accepted by the Alberta Law Society before he or she can practice law in the province, the education and accreditation institutions dictate the supply side of the legal

manpower market. Some respondents to our survey indicated that universities have turned out too many law graduates, creating an over-supply of lawyers, especially during the recession period. However, as students must take three or four years of university programs, two years in law school and a year articling with a law firm before writing the Bar exams, supply-side response to changes in demand will necessarily be slow. Also, the long-term outlook for the general economy is for gradual growth.

The legal services industry in the province is expected to see higher rates of employment growth in the next few years, following the general economic trend. Correspondingly, the demand for paralegal and legal assistants as support personnel will increase. There will be increasing demand for support personnel with knowledge of computer operations, such as word processing, spread-sheet functions and data management.

Required Training

The majority of our survey respondents felt that the existing legal education offered by the universities and the bar accreditation requirements are adequate background training for lawyers. A few respondents would like to see more specialization in the university education training, such as in taxation and computer applications in law.

For paralegals and secretarial staff, there is general dissatisfaction with the existing level and quality of training they receive. More training in word processing and computer operation would be required for secretarial personnel, and some respondents would welcome higher standard training for paralegals in the province.

4.6.4 Issues and Suggested Initiatives

There are relatively few manpower issues identified for the legal services industry. There is a general attitude in the industry that government should involve itself with the industry as little as possible. The legal professionals see themselves as self-regulating, as they have been doing so for many years.

Those who believe government initiatives could assist the industry see these initiatives most effectively applied to university education, training of support personnel and financial assistance. About 40% of our survey respondents found difficulties in providing training required for their staff, due to cost factors, time limitation, lack of appropriate facilities or training staff and lack of appropriate publicly sponsored programs.

The following suggested actions are provided, based on our survey responses, in addressing the issues identified above. These are presented in order of priority to reflect the level of interest found in our survey.

Increasing Training Subsidies

Respondents generally preferred that government provide direct subsidies to firms to hire and train support staff.

Improve University Programs

Universities should consider sponsoring seminars and continuing education programs for lawyers to upgrade their skills and to acquire specialty training.

Universities should also consider adding or increasing the depth of specialty training in their regular curricula to better prepare students in the changing market, e.g. computer applications, international law, taxation.

Formal Training Programs for Paralegals and Legal Secretaries

Current standards of legal assistant and secretary courses are low and unregulated, and training programs are not available in rural areas. Government should set higher standards and regulate the training programs for paralegals and legal secretaries. Government should also explore the feasibility of sponsoring more programs in some rural communities.

4.7 Management Consulting Services (777)

4.7 Management Consulting Services (777)

Management consultants assist or advise senior executives in business, government, and the non-profit sector on the design, planning, implementation, operation and evaluation of the ideas, products and processes in the organization. They provide expert advice in such fields as production, marketing, human resource management, stategic planning, information systems, and strategic planning economics. In Alberta, the industry is represented by the Institute of Management Consultants of Alberta (IMCA) which began in the province in 1977 with 30 members and now has a membership of over 150 practitioners.

One important characteristic of this subsector is that industry definitions of the scope of the industry are not completely consistent with the Statistics Canada definition as used in the 1980 Standard Industrial Classification. Most of the large management consulting firms are associated with major accounting and engineering firms and as such are included in those SIC categories. For example, Stevenson, Kellogg, Ernst and Whinney; Woods Gordon; Price Waterhouse; Touche Ross, Pannell Kerr Forster; and Deloitte Haskins and Sells all have substantial management consulting offices in Alberta in association with their accounting practices. Also, the largest management consulting firm in Canada, DMR and Associates, would be classified as a Computer Services company. Thus a survey of the Business Services subsector 777 will underestimate the full scope of the industry.

4.7.1 Industry Status

The DRIE estimates using Statistics Canada data, show the number of management consulting firms in Alberta increasing 10.3% annually from 863 firms in 1978 to 1397 companies in 1984. Our survey

estimates that there were 1182 firms in December 1986. Most of these firms are very small - management consulting had the smallest average firm size of any sector at 4.75 employees per firm (advertising was second smallest at 7.77 and the overall the Business Services sector averaged 21.09 employees per firm). Our survey estimates that more than 97% of the management consulting firms will have less than 20 employees.

Entry into the industry is relatively easy. Capital costs are minimal and there is no mandatory accreditation process as there is in the legal and architectural professions. In fact during the last recessionary period, many individuals set themselves up as independent consultants when they took early retirement or were laid off in the oil sector. These people may or may not show up in our survey depending on whether or not they make payroll deductions. Access to funds is the primary barrier to expansion for most small consulting firms. It may be a year or more before new employees can generate some returns to the company and the capital required to cover this employee's salary and expenses over the interim period can be substantial. These funds must generally come from within the partnership and so the rate of expansion is often severely contrained. Also, cash flow is often difficult to manage as revenues received can lag the costs incurred by several months. Thus, cash flow is erratic and as a result, turnover in the industry is very high. Almost 53% of the firms listed in the Business Register had to be deleted from our survey because they were out of business, the company was not listed or being struck from Consumer and Corporate Affairs records or there was no telephone listing for either the firm or its Directors. Management consulting had the largest proportion of deletions of any of the eight subsectors where the overall average was only 35% (see Chapter 2.0).

During times of economic downturns, there are fewer consulting projects available and more competition for each project. The result of this increased competition is that profit margins are bid away. Also, another impact of changing economic conditions is the change in client mix. The drop in oil prices and subsequent retrenchment in the oil industry saw a substantial reduction in the amount of work contracted out to the management consulting industry and many consultants adapted by seeking more government work. The consulting industry must always be willing, and able, to respond to these changes in demand, and the key to a successful consulting business, whether large or small, is in developing and maintaining a good reputation.

The smaller firms compete on the basis of their expertise in a particular niche and quality assurance because of the involvement of the principal in project work. They tend to serve the general management consulting needs of small business and the specialized needs of larger businesses in particular niches.

A large management consulting office will have 30-50 employees; there will likely be no firms with more than 100 employees. (Again, the quality of the source listings for the survey comes into question. The Business Register shows 6 firms with 100-199 employees and 1 with 200-499 employees yet none were found in our survey and some major construction companies were listed as management consulting firms). They will have similar cash flow problems relating to new employee profitability but can spread this cost over a larger base and can utilize the person in more ongoing projects. Thus expansionary strains still exist but are not as severe as for smaller firms. The larger firms compete on the basis of the full range of services they can provide, their reputation and well-known names and their linkages with the accounting firms.

They generally serve the larger and mid-sized clients. The latter is an important market segment in that many of the mid-sized firms lack the full range of in-house management expertise.

The Institute estimates that somewhere between one-quarter and one third of management consultants' earnings are derived from not-for-profit organizations including government, health care associations, the welfare field and a variety of charities. Moreover, the Institute estimates that its members with their related support staff, represent earnings to the Alberta economy in the neighbourhood of $15 million annually.*

The majority of the consulting firms are evenly divided between Calgary (44%) and Edmonton (40%) with the smaller urban centres having the remaining 16%.

Exhibit 4.7.1 shows that the Management Consulting subsector has a reasonably typical age distribution with 60% of the firms being in existence for more than five years. It also shows a relatively higher proportion (15%) of new firms formed within the last two years than the other sectors.

The range of services provided is indicated in Exhibit 4.7.2 where business management (25%), information management (16%), and financial management (16%) are the principal components. It is interesting to note the importance of information management. This segment would be even larger if the computer services management consulting firms were classified as part of this subsector rather than 772.

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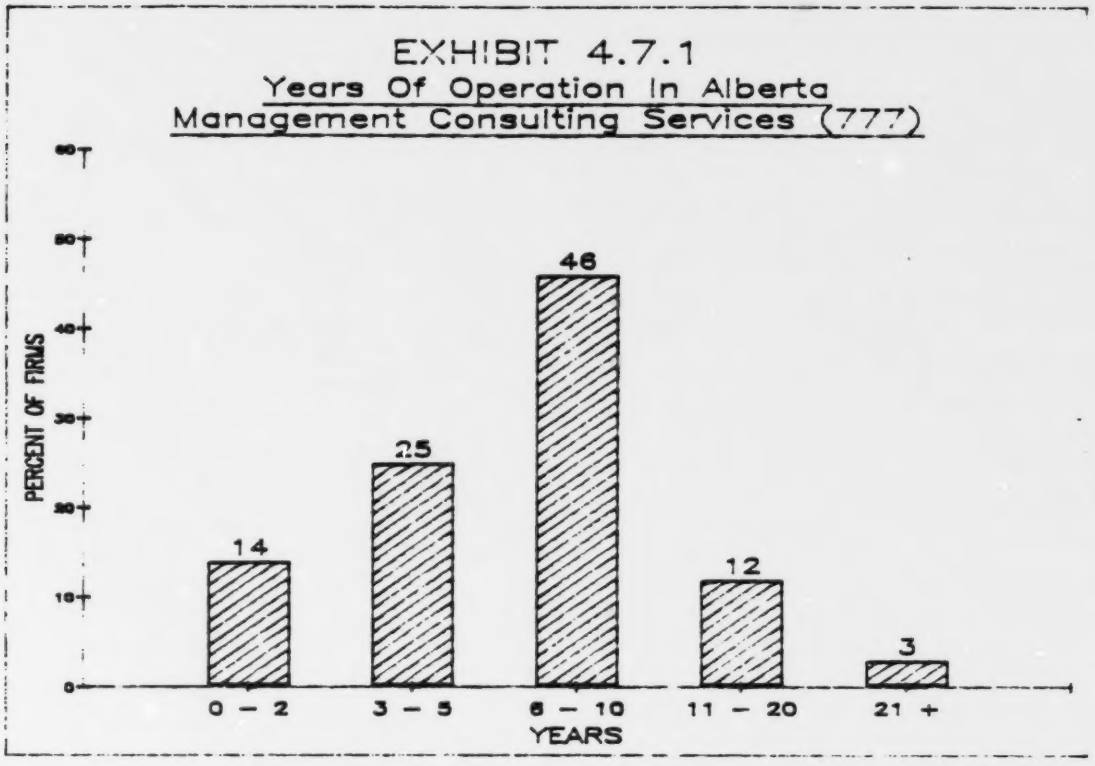
* R. Renauld, President IMCA, Presentation to the Private Bills Committee re Bill 13 - Certified Management Consultants Act., August 13, 1986.



Other businesses provided the primary client group although government and, to a lesser extent, individuals have significant shares of the market. (Exhibit 4.7.3). This is consistent with the estimates made by the President of IMCA quoted earlier.

EXHIBIT 4.7.2
Services Provided (%)

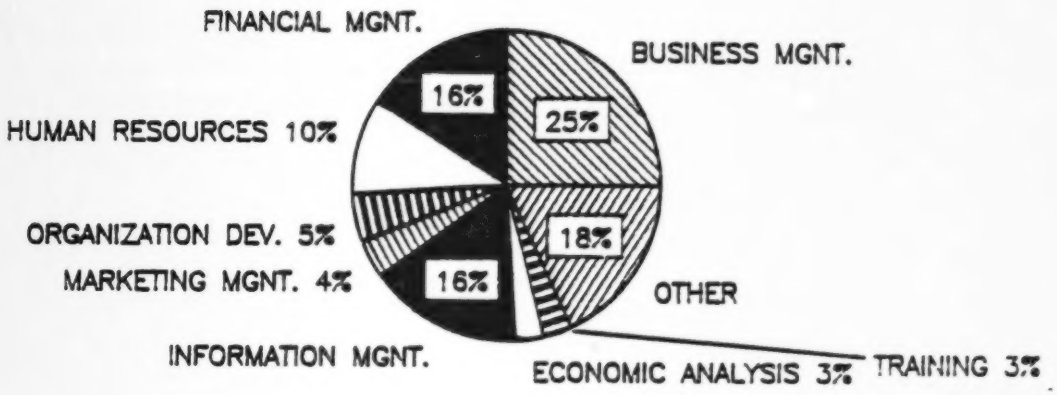
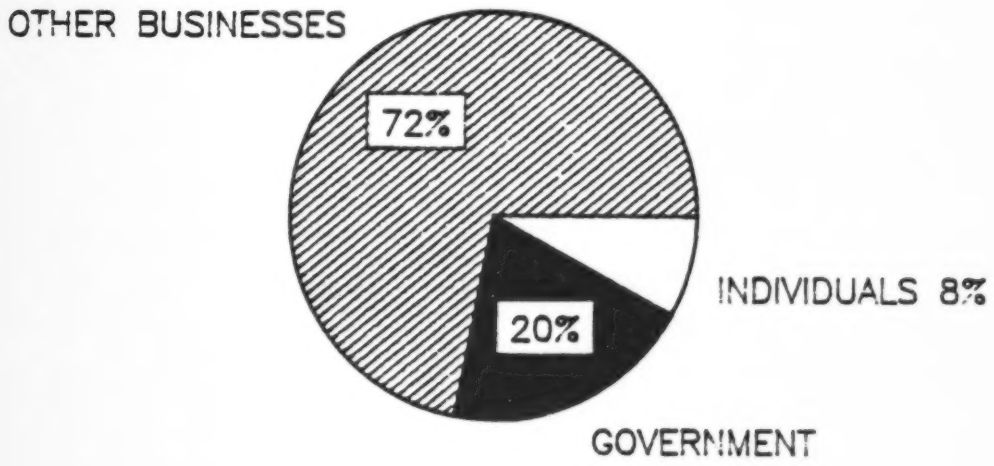


EXHIBIT 4.7.3
Clients Served (%)



4.7.2 Employment and Occupations

Total employment in the Alberta management services industry (SIC 777) is estimated from this survey to be 4331 people of whom 90% are full time workers and 10% are part-time workers (Exhibit 4.7.4).

EXHIBIT 4.7.4
Employment: Full-Time/Part-Time
(%)

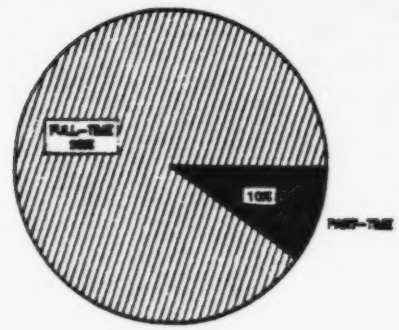
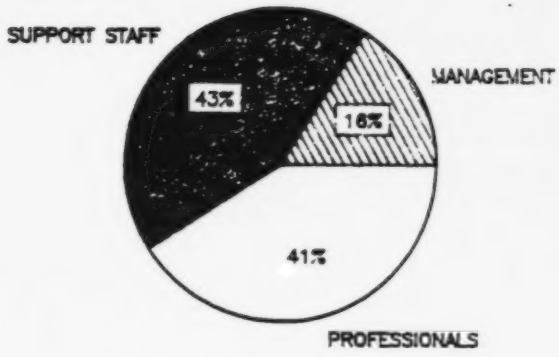


EXHIBIT 4.7.5
Occupational Status
(%)



The management consulting industry uses subconsultants to a greater extent (44%) than do other industry groups and this is a reflection of the increasing specialization of the industry. Clients are becoming more demanding and this has resulted in the more frequent use of expert advisors. Also, as in the engineering industry, groups of specialists are increasingly forming consortia to bid jointly on larger projects. These are examples of how the industry is adapting to client needs.

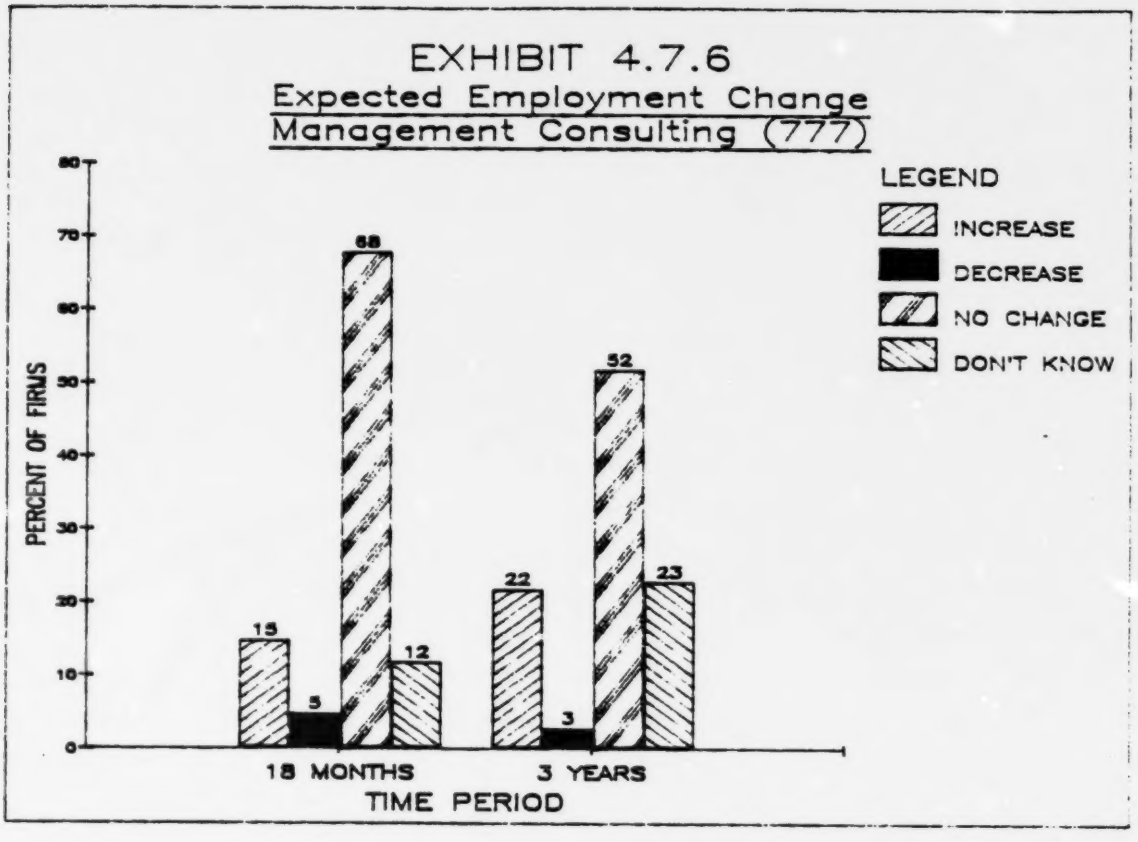
In keeping with professional firms generally, professionals constitute approximately 41% of the employees while support staff account for another 43% (Exhibit 4.7.5). There is no general accreditation process within the industry although the Institute of Management Consultants of Alberta is sponsoring legislation to have the Certified Management Consultant (CMC) designation recognized in Alberta as it is in seven other provinces. This would be a non-exclusive designation in that non-CMC's could continue to practice management consulting in the province but the Institute would impose quality controls on its members and have the power to fine members for substandard work.

There is no real shortage of management consultants according to the people we interviewed; the firms simply hire the expertise needed from industry and government. In times of an expanding economy, consultants are often hired back into industry, creating higher turnover of staff but this drives the price of labour up rather than creates a shortage of labour.

4.2.3 Industry Trends

Expected Employment Change

A higher proportion of survey respondents (68%) expected no employment change over the next eighteen months and only 15% predicted an increase - this is much more cautious than most of the subsectors surveyed. Consistent with other subsectors, management consultants were more optimistic about the economic climate in the longer term (3 years) (Exhibit 4.7.6).



Growth was expected in the financial management, computer/information management, economic analysis and forecasting, and market planning areas. Only 21% of respondents saw this growth in these specific areas as translating into manpower shortages. There was little concensus as to where these shortages would occur as only two areas were indentified by more than one respondent - economic analysis and forecasting (2), and oil and gas experience (2).

Training Requirements

Forty-nine respondents identified future training requirements but 22 of these saw this need as a university degree in business management or its equivalent.

Eight percent of respondents identified each of the following areas as future training requirements: computers, financial management, on the job training and practical experience. The first is consistent with all of the other groups that identified computer programming as a high priority area while the latter two reflect the industry's emphasis on hiring people with the necessary skills.

Barriers to Training and Possible Initiatives

Again, as typical with other industry groups, the principal barriers to firms providing their own training were lack of time (31%) cost (26%), small size/limited resources (15%) and lack of a skilled trainer. About one quarter of the respondents saw no new initiatives required while an equal proportion saw some need for wage subsidies and training allowances. Another fourteen percent saw a need for financial incentives to firms to provide training. However, these suggestions must be placed within the context of the general stategy of hiring skilled people as needed and low expectations of future manpower shortages.

Increasing Specialization

A basic trend in the industry is toward increasing specialization as clients become more sophisticated in defining their needs. Consistent with this is the development of proprietory products for particular market niches such as

geographic information systems for regional development problems, survey analysis programs and job evaluation products. Each is an attempt to respond to the need for highly specialized capabilities in particular areas.

4.7.4 Issues and Suggested Initiatives

Accreditation

The primary issue facing the management consulting industry in Alberta is one of accreditation. With no control over who provides management consulting services and with the breadth of services required, Alberta organizations are facing a "buyer beware" environment. Consulting firms, both large and small, must develop a reputation for quality work in order to succeed in the long run but this is small consolation for the client who has received an inadequate and substandard product. The initiative of the Institute of Management Consultants of Alberta to have the CMC designation recognized and to be able to police its own members is clearly a step in the right direction.

Privatization

The provincial government can help promote and develop a healthy management consulting industry in the province by contracting out work rather than developing the particular capabilities in-house. This suggestion is consistent with the government's general strategy of privatization.

4.8 Other Business Services (779)

4.8 Other Business Services (779)

Other or General Business Services is the most diverse of the eight subsectors in the Business Services Sector and is comprised of those industries that do not fit easily into other categories. The major industries by four digit SIC Code are:

- o 7791 Security and Investigation Services
  - detective and investigation services
  - patrolling
  - security guard services
  - armoured car services
  - burglar alarm and protection services
- o 7792 Credit Bureau Services
  - consumer and commercial credit reporting
  - credit bureau
  - credit rating services
- o 7793 Collection Agencies
  - establishments primarily engaged in collecting accounts, cheques, contracts or notes
- o 7794 Customs Brokers
  - establishments primarily engaged in the clearing of goods through customers for other businesses
- o 7795 Telephone Answering Services
- o 7796 Duplicating Services

o 7799 Other Business Services - not classified elsewhere

- fashion designing
- graphic design
- interior design
- actuarial services
- secretarial services (typing, stenographic)
- modelling agencies
- fund raising services
- economic intelligence
- editorial services
- telephone solicitation
- translation services
- directory compilation
- pattern making (needle trade)
- inventory taking

4.8.1 Industry Status

From the results of the survey, we estimate that there are 872 active firms in this subsector compared to an estimate of 1608 firms in 1984 from the DRIE data. The primary reason for this difference is the large number of inactive or misclassified firms identified in this subsector. The original Business Register data showed 1646 firms; however approximately 40% of the firms drawn in the initial sample were found to be misclassified (i.e. insurance, real estate, medical companies), no longer in business, no telephone numbers for the company or the directors, or no listing was available at Alberta Consumer and Corporate Affairs. This, combined with the misclassification problem, led to the revised estimate of 872 firms.

While the list of businesses in this subsector is extensive, three of the largest industry groups are the security business, design (graphic art, industrial, interior and fashion design) and customs brokerage. These are briefly profiled below.

Security

The security industry is a combination of several large firms with more than 300 employees, and small independents. The eleven firms which participated in this survey had 2539 employees for an average of 230 employees per firm.

The security industry is expected to grow at or above the average rate for the business services sector with a key determinant being the number of new office complex completions. The security business is moderately sensitive to changing economic and social conditions and one factor causing the business to expand in recent years is because of a growing concern for protection against theft and vandalism.

Although a labour intensive activity, the greater use of video and electronic monitoring will certainly affect the security guard's duties on the job. It is not clear however what impact this will have on future employment.

Design

The second major industry group was the design-oriented firm and the 18 firms we interviewed averaged 5 employees each. Within the industry these are four main subgroups, industrial design, graphic or commercial art, interior design and fashion design.

Industrial design is the professional service of creating and developing concepts and specifications that optimize the appearance, function and value of products for the mutual benefit of both user and manufacturer.* Typically these firms are locally owned with 6-12 employees.

It is estimated there are approximately 1000 graphic arts firms in Canada** usually with five or less employees. The graphic arts industry is generally considered a growth area with extensive entry into and exit from the industry.

Interior design involves solving the physical and aesthetic needs of people using interior space for living, working, personal use, worship or recreation. The major markets are corporate offices (the dominant market), retail stores and shopping centres, hospitality, institutional and residential. Generally this industry grows with the economy and new firms are generally created as a result of people leaving the larger, established firms to be on their own.

The smallest industry is fashion design. In Toronto, the Toronto Ontario Designers Association requires firms to have sold for five or more years before being eligible for membership and there are only forty such eligible firms in that city. While fashion design is a relatively small industry in Alberta, there appears to be some growth potential in the province.

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* Ontario Ministry of Treasury and Economics, 1986 - Ontario Study of the Service Sector, Background Papers.

** Ibid

Customs Brokers

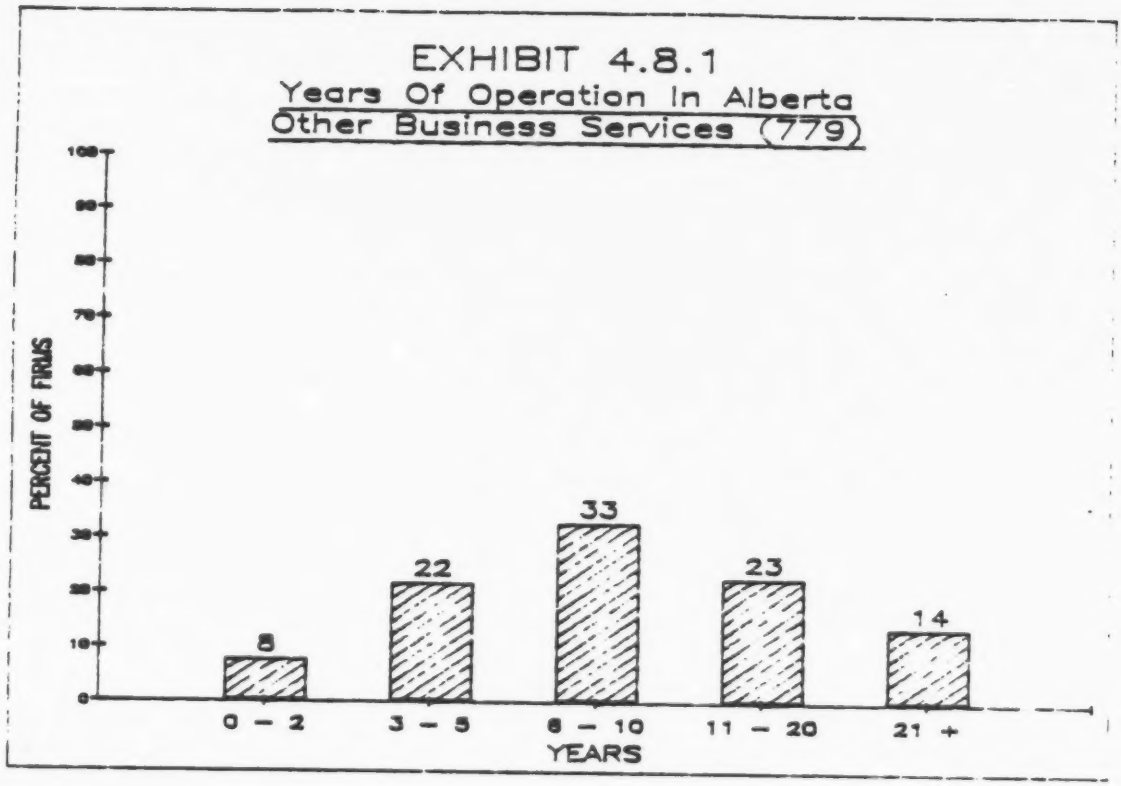
Our survey included nine customs brokerage firms with an average of 20 employees.

Customs brokerage is often linked with the freight forwarding business (SIC 4592), and to a lesser extent, public warehousing (SIC 4791). In fact 60% of the Canadian brokerage firms are part of, or associated with, freight forwarding firms, so that examination of the characteristics of the pure brokerage houses in SIC 7794 will not show a complete picture of the industry. Alberta has 24 out of the 430 freight forwarding and customs brokerage head offices in Canada and 118 (or 10%) of the offices (including branch operations) in the country. Of the 49 multinationals operating in Canada, 4 have located their head office and there are 39 out of their total of 216 offices here in the province. Finally in terms of those offices that provide customs brokerage services 23 (or 12%) of the offices are here in Alberta.

To give a sense of the size of the industry, there are 268 licensed customs brokerage firms in Canada handling something in the order of 7 million import entries per year.

Currently the industry relies on experienced personnel more than technology to develop a competitive advantage but computerization will be a key to success in the future. Also the outcome of the free trade discussions will have a major impact on the industry in the next few years.

While the size of the sample did not permit estimation of the characteristics of the firms in each industry within the Other Business Services subsector, useful information is available for the subsector as a whole. First, our 70% of the firms sampled have been in operation for more than five years (Exhibit 4.8.1). This is fairly typical of the business sector as a whole.



Second, while approximately 10% of the firms interviewed were in he security industry, they accounted for 58% of the services provided to clients. When the services provided information is weighted by firm size (Exhibit 4.8.2) Customs Brokerage are the second largest with only 5% while credit bureaus, design services and telephone answering each had 2% of the market. The large residual (31%) indicates the fragmentation of this subsector - a result that was not unexpected.

Finally, the Other Business Services subsector was also fairly typical in terms of the client mix with 80% of their clients being other business and 16% the government (Exhibit 4.8.3).

EXHIBIT 4.8.2
Services Provided (%)

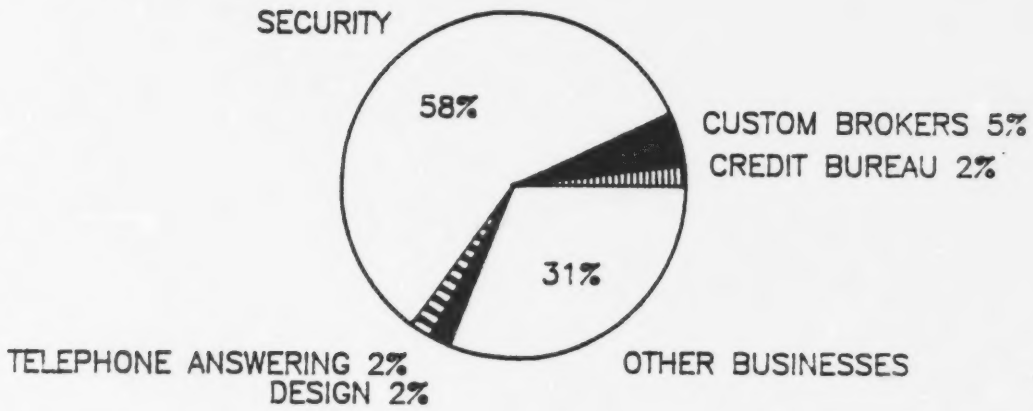
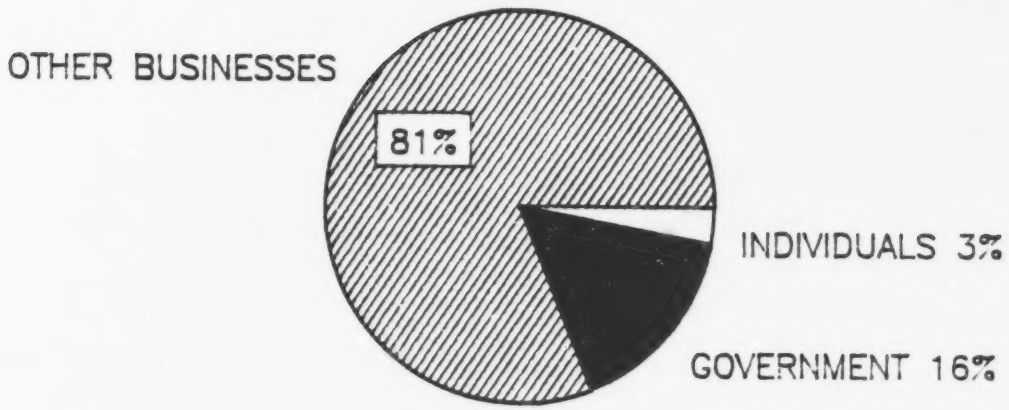


EXHIBIT 4.8.3
Clients Served (%)



4.8.2 Employment and Occupations

The subsector is estimated to employ 12,419 people making this the second largest subsector in terms of employment. Other business services had a number of firms with more than 200 employees. Completed interviews were obtained for approximately 40% of the 70 firms expected to have more than 20 employees and these sampled firms had an average of 129 employees each. The smaller firms in the sample averaged only 4.7 employees per firm.

Almost half of the large firms sampled were in the security business, mainly providing security guard and patrolling services.

The subsector was again typical of the overall sector in the proportion of full time employees on staff (85% - Exhibit 4.8.4). However it differed dramatically in the occupational status of the employees. Only 5% were classified as professional and 7% as management. This reflects the flat hierarchical structure in the larger security companies. (Exhibit 4.8.5).

EXHIBIT 4.8.4
Employment: Full-Time/Part-Time
(%)

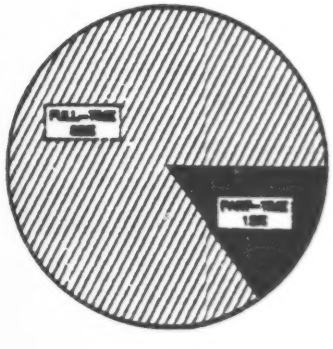
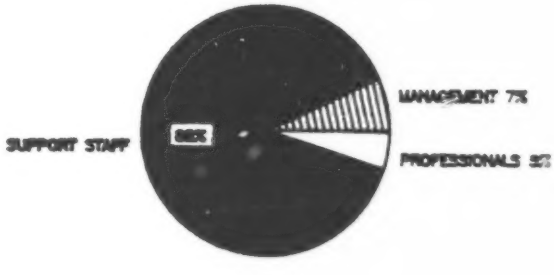


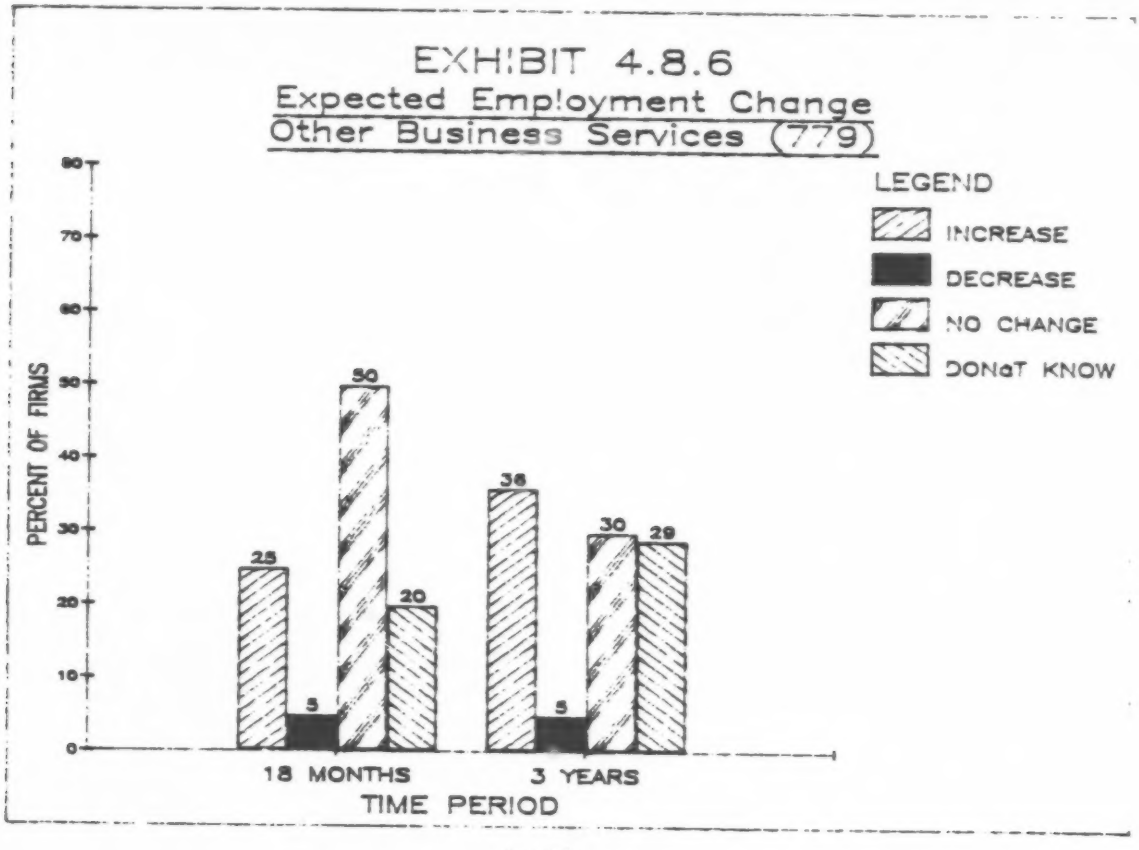
EXHIBIT 4.8.5
Occupational Status
(%)



4.8.3 Industry Trends

Exhibit 4.8.6 shows the respondents' expectations in terms of industry manpower utilization over the next 18 months and three years. Exactly half of the firms expect no employment change in the next year and one half while one quarter expect to grow. These are fairly typical of the business services sector as a whole, and that conformity continues for their expectations over the next three years which are moderately more optimistic.

When asked to identify specific growth areas 37% did not see any growth, 7% identified computer software and design, another 7% highlighted security and investigation and 5% noted interior design and renovations. Computer utilization was also mentioned in the personal interviews. In all, 23 separate growth areas were identified.



Of the 66 respondents who identified specific growth areas, only 12 (or 18%) predicted manpower shortages and only security and investigation was named by more than one respondent. The manpower shortages are seen primarily for highly experienced personnel and specialized fields such as garment inspection and interior systems mechanics.

In keeping with the very diverse nature of the subsector, 29 different areas were identified where training is required. The two dominant training requirements were for in-house training (18%) and computers (8%).

Again consistent with the other subsectors, cost (19%) and lack of time (12%) were seen as the principal barriers to employee upgrading although almost half (43%) did not see any major barriers.

A similar proportion (44%) did not see any need for specific training initiatives but 16% felt that more financial incentives would be worthwhile. Another 13% felt the government should deliver training courses but there was not concensus on the topics as 11 different subjects were identified.

Again improving the provincial economy through job creation and incentives to the oil and gas industry was the main broad initiative recommended (17%).

4.8.4 Issues and Suggested Initiatives

While it was difficult to get a reading on specific issues or concerns for firms in this subsector, three predominated: the need for the provincial government to stimulate the provincial economy, the need for computer oriented training courses, and

accreditation. The first two points have been mentioned frequently throughout the report and will not be elaborated upon further. Accreditation was mentioned several times as an important mechanism to improve the standard of work within the various industries and is clearly an issue of general concern. However we hesitate to suggest any specific accreditation initiatives because it was identified by only one person in each industry. Nevertheless the need for accreditation is something that should be monitored by the Department.

CHAPTER 5.0

OVERALL CONCLUSIONS AND RECOMMENDATIONS

5.0 OVERALL CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview of the Industry

The Business Services Sector as defined by Statistics Canada is the fastest growing sector in the Canadian economy and this growth has been particularly rapid in Alberta. Based on our survey of 1200 firms, the Alberta Business Services Sector is estimated to have approximately 8000 firms and 76,800 employees. The eight subsectors range in size from Employment Agencies and Temporary Help Services (134 firms) and Advertising (237 firms and 1400 employees) to Architectural, Engineering and Other Scientific and Technical Services with 2,224 firms and 31,000 employees. Only fourteen percent of the employees are part-time although there is some evidence that this proportion is increasing.

The Sector is characterized by very small firms and substantial entry into and exit from the industries. As the majority of work done by firms in this sector is for other businesses, the sector is very responsive to changes in the general economy and has gone through substantial retrenchment in the last few years. The Architectural, Engineering and Other Scientific and Technical Services group has suffered the most during the recent economic downturn in the province with 44% of the surviving firms in this industry employing fewer people in 1986 than they did in 1984. Advertising seemed to be the least affected in that only nine percent of the reporting firms showed a decrease in employment while computing services had the highest proportion of growing firms during the last two years.

The Architects and Engineers subsector was also the industry group that experienced the most seasonality (the yearly trough was 80% of the peak employment month), a factor that is attributable to the outdoor nature of much of their work. The other subsectors showed minimal seasonal employment swings over 1986.

The Business Services Sector is gaining increasing respect from industry in general and as clients become more sophisticated and aware of what the sector can provide, they have become more demanding in terms of receiving high quality service. This has led to increasing specialization in the Business Services Sector.

This trend, when combined with the economic recession, has resulted in a decrease in the average size of firms. The two smallest subsectors in terms of average firm size, Management Consulting and Advertising, also indicated substantial and increasing use of subcontractors as a way of responding to the tight economic conditions and the trend toward more specialization.

As is common with small firms in general, business services firms find that the major barriers to upgrading the expertise of their employees through training to be cost, lack of resources and lack of time. Firms in the smaller centres and rural areas also encounter accessibility barriers in that courses are not generally offered outside the major cities and travel requirements increase the difficulty of utilizing training programs.

In summary, the Business Services Sector is made up of approximately 8,000 firms that are typically very small, becoming more specialized and are highly impacted upon by changes in the provincial economy. In the next section we present a series of observations and recommendations that we believe will strengthen what is becoming an increasingly important sector in the economy.

5.2 Recommendations

5.2.1 Quality of Records

While the typical size of business services firms, the product they provide their clients (services rather than goods) and the minimal plant and equipment required to provide these services all combine to mean that the Business Services Sector will be very fluid in terms on entries and exits, it is nevertheless very important that more accurate statistics be maintained on the number of firms in the industry. Thirty-five percent of the sample drawn from the Business Register were found to be out-of-business, not listed in Alberta Consumer and Corporate Affairs records, had been or were being dropped from these records or did not have a telephone number for either the firm or the principal Directors. In some subsectors such as Management Consulting, more than fifty percent of the initial sample were lost for these reasons. Moreover a significant proportion of firms were misclassified in terms of size or SIC code.

An active monitoring program may be required where the Business Register is compared to other databases such as those maintained by the Workers' Compensation Board or Dun and Bradstreet.

If the provincial government is to develop a better understanding of the industry and develop the appropriate support programs if and when necessary, then more accurate records of firms active in the industry must be maintained.

We therefore recommend that Alberta Career Development and Employment strongly encourage Alberta Bureau of Statisticss and Statistics Canada to maintain more current listings of active firms.

5.2.2 Computer Oriented Training Initiatives

Increasing use of the computer is the most pervasive trend in today's economy and if Alberta industry is to remain competitive in the provincial, national and international markets, then computer familiarity and literacy must be increased. Computer-oriented courses, from basic familiarity to highly sophisticated, state-of-the-art modelling, were identified as the single most pressing need in virtually all eight subsectors.

Numerous training programs already exist in both the public and private sectors and therefore the problem is one of stimulating more utilization rather than filling a service gap.

As such we recommend that Alberta Career Development and Employment develop a program of specifically targeted financial incentives for companies to develop/upgrade their employees' computer skills and capabilities. While such a program could be included within the Alberta Training Program, we believe the program is sufficiently important that it should be specifically targetted.

5.2.3 Business Management and Communication Training Initiatives

The second most pressing manpower development need identified in the Business Services Sector was for more business management and communication skills. This requirement took two forms: a general need for employees to have better skills in these areas and a need for the educational institutions to incorporate more business and communications courses as part of the curriculum in degree programs areas such as advertising, architecture, engineering and law.

Again the market for employee upgrading courses is reasonably well served with the offerings of the educational institutions and the Federal Business Development Bank but there may be an opportunity for the Department to explore expanding their Alberta Training Program in this area to allow more firms to take advantage of these courses. This may however require some adjustment in how support is provided.

Also, numerous respondents emphasized the point that new graduates required more understanding of how a business operates and better communications skills.

Therefore we also recommend the Department utilize its training programs to enhance business management and communication skills and that the Department work with Alberta Advanced Education to encourage the educational institutions to incorporate more business management and communications courses in their degree programs.

5.2.4 Support For Training Supplied By Professional Associations

In several of the professional areas some of the training is provided by the professional association which is very well placed to understand the educational upgrading needs of its members. However some of these associations are having difficulty providing this re-training because of the financial constraints created by the downturn in the provincial economy.

We recommend Alberta Career Development and Employment consider providing support for professional training through programs offered by the respective professional associations where there is clear evidence that the need for professional upgrading/training exists.

5.2.5 Innovative Work/Institution Training Alternatives

Practical experience and on-the-job training are two of the most valuable learning processes available and are especially powerful when combined with formal education programs. These combined programs can be structured in a number of ways:

- o co-operative programs
- o internships
- o paid education leaves
- o unpaid education leaves
- o voucher systems

The development of such programs was a consistent recommendation from each subsector in that they provide people at the entry level with more practical experience than is generally possible with the education programs currently available.

We therefore recommend the Department encourage these types of learning processes whenever possible but particularly in the high demand areas such as computers, business management and communications.

5.2.6 Marketing of High Technology Products and Services

A major goal of the provincial government has been the development of a viable high technology industry in Alberta and one very valuable suggestion to consistently come out of this survey was for the development of a specific program targetted to increasing the international marketing capabilities of the firms in the high technology industry. Alberta CD&E has such a program - the Alberta International Marketing Employment Program whereby up to 50% of a new graduate's salary is covered by the Department for up to two years if the person is hired to promote the firm's international marketing capabilities. However, the program is not well known and quite small.

Therefore we recommend the Department expand its commitment in this area by increasing the size of the program and more actively promoting its use.

5.2.7 Program Eligibility Criteria

Several survey respondents questioned the need for particular eligibility requirements for some of Alberta Career Development and Employment's programs. Specifically, they found the two month wait for students from training programs prior to entering the wage subsidy program, the three year residency requirement for some programs* and the 24 week unemployment period for people on UIC before elibibility for training programs all created barriers to hiring the most competent employees.

We therefore recommend that the Department examine its eligibility criteria to ensure that they are both effective and necessary.

5.2.8 Marketing of the Programs Available

Many respondents were not aware of the variety of programs provided by Alberta Career Development and Employment. Moreover, there is a new consulting market niche developing where the consultant identifies and accesses these programs for the firms and then manages any funds the firms receive. This is a fairly strong indication that the Department's programs are not well known or well understood.

We therefore recommend Alberta Career Development and Employment expand the marketing and promotion of its programs so that these programs are more directly accessible by their potential users.

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* The residency requirement was recently reduced to six months for most programs but more could be done in this area.

5.3 Conclusion

The two most powerful ways the provincial government can increase the vitality of the Business Services sector are:

1. To contract out particular services to the private sector rather than developing the capabilities internally. While only twenty-five percent of the work done by Business Services Sector firms is for the public sector, increased emphasis on contracting out for required services will expand the markets of these firms, attracting new entrepreneurs and strengthening existing firms.

2. To promote the overall Alberta economy with, for example, programs to support the oil and gas industry to compensate for price fluctuations, and tax reforms during economic downturns to stimulate business activity. Creating a healthier Alberta economy will indirectly strengthen the Business Services Sector in that it will strengthen the viability of the clients of this sector and in the long run will provide a stronger market for business service firms.

Alberta has a dynamic and growing Business Services sector that should be encouraged and strengthened whenever possible. Incorporation of these recommendations by Alberta Career Development and Employment and the other Departments and institutions affected would clearly improve a very important sector in Alberta's economy.

5.3 Conclusion

Alberta has a dynamic and growing Business Services sector that should be encouraged and strengthened whenever possible. Incorporation of these recommendations by Alberta Career Development and Employment and the other Departments and institutions affected would clearly improve a very important sector in Alberta's economy.

APPENDIX A

COMMITTEE MEMBERS

STEERING COMMITTEE MEMBERS

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APPENDIX B

MATERIALS MAILED TO RESPONDENTS

- Letter from Deputy Minister
- Sample Questionnaires

Alberta
CAREER DEVELOPMENT
AND EMPLOYMENT

Office of the Deputy Minister

18th Floor Park Square, 10001 Bellamy Hill, Edmonton, Alberta, Canada T5J 3C1 403/427-3659

APRIL 1, 1987

Dear Sir/Madam:

Alberta Career Development and Employment is undertaking a study of employment trends in the business services industry in order to develop a labour market profile of the sector.

I am asking for your support of the study as it will be beneficial to industry and government in manpower planning activities and assessing, more precisely, employment changes in the industry. When completed, we intend to share the study results with you through industry and professional associations.

During the next few weeks you will be contacted by an interviewer from Alberta Career Development and Employment. A telephone interview with a representative of your firm will be arranged at your convenience. Please be assured that the information gathered relating to specific firms will remain strictly confidential. A copy of the interview questionnaire is included to show you the scope of the survey.

Thank you in advance for your anticipated cooperation. I feel that the successful completion of this project will allow both industry and government to better assess the current state of the industry and to understand future occupational requirements.

If you would like to discuss this study further, please do not hesitate to call Dr. Bev MacKeen, Alberta Career Development and Employment, at 427-8508. She is available to discuss any concerns or suggestions you may have about the project.

Yours truly,

Al N. Craig
Deputy Minister
Alberta Career Development
and Employment

ANC/mc

ALBERTA BUSINESS SERVICE INDUSTRIES EMPLOYMENT SURVEY

Sector 773

Interviewer _____

Sequence # _____

ACCOUNTING AND BOOKKEEPING SERVICES

A telephone survey on employment and manpower needs in your industry is being conducted by the Department of Career Development and Employment, Government of Alberta. You will be contacted by telephone within the next 14 days and the interviewers will be asking the following questions. It would help us and be less of an intrusion on your time if you would review the questions now and gather the necessary information in preparation for the telephone call.

The purpose of the study is to better understand the nature, structure and manpower needs of those industries which primarily serve the business community such as accounting, architecture and engineering, personnel placement, management consulting, legal services, and computer service firms.

Participants in this study will benefit by their industry associations and the provincial government having a better understanding of employment and manpower requirements. By identifying the anticipated growth areas, and training and education needs, both the associations and the government can better target their programs.

Please be assured that your answers will be completely confidential and reported only in the aggregate so that no individual company can be identified.

Please do not mail the questionnaire back. If you complete the questionnaire before you are telephoned, you may call 427-8501 collect in Edmonton, and an interviewer will record your response.

Please read the survey guide provided with the questionnaire before answering any of the questions.

General

1. Contact _____ 2. Date _____
3. Job Title of Contact Person _____
4. Company Name _____
5. Division or Branch _____ 6. Phone Number _____
7. Address: Street _____
   Town/City _____
   Province _____ Postal Code _____ Region _____
8. Is your firm associated with any parent, associated or subsidiary firms also operating in Alberta? If so, please give the names and addresses of these firms.

   _____ 8000

   _____

9. Please describe your major business function or activity.
   (eg. Accounting, Management Consulting, Bookkeeping, Financial Advisory, Computing)

   _____ 9000

10. What percentage of your firm's business in 1986 would you estimate was in providing services to:
    - other businesses _____ 10000
    - government departments or public agencies _____ 10100
    - individuals _____ 10200

    Total 100% 10300

11. How long has your firm been operating in Alberta? _____ years. 11000

Historical Employment

12a. How many employees (i.e. people on your firm's payroll) worked for your firm at the following times: (see guide for definitions)

	Full Time	Part Time	Total	
December 1986	_____	_____	_____	12000
December 1984	_____	_____	_____	12100
December 1982	_____	_____	_____	12200
December 1980	_____	_____	_____	12300

b. Do these figures include any staff from the parent, associated or subsidiary firms identified in Question 8?

Yes _____ No _____ 12400

Employment in 1986

13. Please allocate the **total** number of people employed in your firm in December 1986, to the following categories.

Management	_____	13000
Professionals	_____	13100
Support Staff	_____	13200
Total	_____	13300

14a. What was your firm's peak employment month in 1986? _____ 14000

b. How many employees were there in this peak month?

Full time _____ Part time _____ Total _____ 14100

c. In what month was your firm's employment the lowest? _____ 14200

d. How many employees were there in the month named in 14c?

Full time _____ Part time _____ Total _____ 14300

15. Did you use any subcontractors in December 1986? Yes _____ No _____ 15000

Types of Services

16. The following is a list of the major types of services in the business service industries. For your **professional** staff, please estimate the number of employees as of December 1986 that were in each of these sectors: (see guide)

	Number of Professional Employees	
• Accounting and Bookkeeping	_____	16000
• Advertising	_____	16100
• Architectural, Engineering, Other Scientific and Technical Services	_____	16200
• Computers and Related Services	_____	16300
• Employment and Personnel Placement	_____	16400
• Legal Services	_____	16500
• Management Consulting	_____	16600
• Other Business Services (see guide)	_____	16700
Total	_____	16800

17. Now would you please provide more detailed information on employment within **Accounting and Bookkeeping**. Please estimate the percentage of work done in 1986 in each of the following categories.

Auditing	_____	17000
Accounting (Preparation of Financial Statements)	_____	17100
Accounting (Oil and Gas)	_____	17200
Bookkeeping	_____	17300
Taxation	_____	17400
Business Management Consulting	_____	17500
Computer Systems Development	_____	17600
Personal Financial Management	_____	17700
Other	_____	17800
	Total 100%	17900

Employment Change

18a. What change in total Alberta employment in your firm do you expect over the next 18 months and 3 years.

	Next 18 Months	Next 3 years	
No change	_____	_____	(Go to Question 19) 18000
Increase	_____ people	_____ people	18100
Decrease	_____ people	_____ people	18200
Don't know	_____	_____	18300

b. If the number of employees in your firm is expected to increase or decrease, in the next three years, which areas will be affected?

	Increase in Employees	Decrease in Employees	
Management	_____	_____	18400
Support Staff	_____	_____	18500
Professionals			
Auditing	_____	_____	18550
Accounting (Preparation of Financial Statements)	_____	_____	18600
Accounting (Oil and Gas)	_____	_____	18650
Bookkeeping	_____	_____	18700
Taxation	_____	_____	18750
Business Management Consulting	_____	_____	18800
Computer Systems Development	_____	_____	18850
Personal Financial Management	_____	_____	18900
Other	_____	_____	18950

Industry Trends and Requirements

19. What areas of your **industry** do you expect to experience growth in the next three years (eg. computer auditing, statistical analysis, personal financial management)? Will there be a shortage of skilled manpower in any of these areas? Please be as specific as you can.

19000

20. What types of training are required for the growth areas that you have identified?

20000

21. What factors make it difficult for your firm to provide training for your employees?

21000

22. What training initiatives do you think the provincial government should provide to help your industry?

22000

23. What other steps can the provincial government take to enhance employment in your industry?

23000

Thank you for your cooperation.

GUIDE

ALBERTA BUSINESS SERVICE INDUSTRIES EMPLOYMENT SURVEY

This guide clarifies the meaning of specific terms used in the questionnaire. Please be sure to read this guide before you answer any of the questions. Since the accuracy of the study depends on the data you provide, please give the most precise figures available.

BUSINESS SERVICE INDUSTRIES

Establishments primarily engaged in providing services more to the business community than to the general public. Included in this major group are employment agencies and personnel suppliers; computer services; accounting and bookkeeping services; advertising services; architectural, engineering and other scientific services; lawyer and notary services; management consulting services; and business services not elsewhere classified.

Accounting and Bookkeeping Services

Establishments primarily engaged in providing auditing, accounting and bookkeeping services.

Advertising Services

Establishments primarily engaged in operating advertising agencies; acting as media representatives; renting space on outdoor displays and billboards; and providing other advertising services.

Architectural, Engineering and Other Scientific and Technical Services

Establishments primarily engaged in providing architectural, consulting engineering and other scientific and technical services. This latter group includes drafting services, magnetometric and seismographic survey services, land and marine surveying and urban planning for example. Establishments primarily engaged in construction project management are not included.

Computer and Related Services

Establishments primarily engaged in providing computer services such as programming, planning and systems work, in providing computer facilities on a rental, leasing or time sharing basis, and in the maintenance and repair of computer equipment.

Employment Agencies and Personnel Suppliers

Establishments primarily engaged in operating a placement service or in acting as agents providing personnel on either a permanent or temporary basis on contract.

Offices of Lawyers

Establishments primarily engaged in the provision of legal advice or legal services.

Management Consulting Services

Establishments primarily engaged in providing business and management consulting services. Establishments primarily engaged in market research and those primarily engaged in construction management are not included.

Other Business Services

Establishments primarily engaged in providing security and investigation, services, telephone answering, duplicating, telephone solicitation, secretarial and stenographic services, graphic design, appraising, interior design, modelling, fashion design and fund raising services. Also included are credit bureaus, collection agencies, customs brokers.

ALBERTA OPERATIONS:

If you are a branch office of a national firm, include only employment in your Alberta offices. If your firm has its head office in Alberta, include only employment in your Alberta branches.

EMPLOYEES People for whom the firm deducts income tax and submits these deductions on their behalf to Revenue Canada.

Full-time Employees working 30 or more hours per week throughout the year.

Part-time Employees who work less than 30 hours per week.

REGION

This is an internal departmental code based on the postal code.

ALBERTA BUSINESS SERVICE INDUSTRIES
EMPLOYMENT SURVEY

ADVERTISING SERVICES

A telephone survey on employment and manpower needs in your industry is being conducted by the Department of Career Development and Employment, Government of Alberta. You will be contacted by telephone within the next 14 days and the interviewers will be asking the following questions. It would help us and be less of an intrusion on your time if you would review the questions now and gather the necessary information in preparation for the telephone call.

The purpose of the study is to better understand the nature, structure and manpower needs of those industries which primarily serve the business community such as accounting, advertising, engineering, personnel placement, management consulting, legal services and computer service firms.

Participants in this study will benefit by their industry associations and the provincial government having a better understanding of employment and manpower requirements. By identifying the anticipated growth areas, and training and education needs, both the associations and the government can better target their programs.

Please be assured that your answers will be completely confidential and reported only in the aggregate so that no individual company can be identified.

Please do not mail the questionnaire back. If you complete the questionnaire before you are telephoned, you may call 427-8501 collect in Edmonton, and an interviewer will record your response.

Please read the survey guide provided with the questionnaire before answering any of the questions.

General

1. Contact Person _____ 2. Date _____

3. Job Title of Contact Person _____

4. Company Name _____

5. Division or Branch _____ 6. Phone Number _____

7. Address Street _____

   Town/City _____

   Province _____ Postal Code _____ Region _____

8. Is your firm associated with any parent, associated or subsidiary firms also operating in Alberta? If so, please give the names and addresses of these firms.

   _____

   _____

9. Please describe your major business function or activity.
(i.e. Media Advertising, Communications, Management Consulting, Outdoor Displays, Commericial Art, Direct Mail Advertising).

_____

10. What percentage of your firm's business in 1986 would you estimate was in providing services to:

- other businesses _____
- government departments or public agencies _____
- individuals _____

Total 100%

11. How long has your firm been operating in Alberta? _____ years.

Historical Employment

12a. How many employees (i.e. people on your firm's payroll) worked for your firm at the following times: (see guide for definitions)

	Full Time	Part time	Total
December 1986	_____	_____	_____
December 1984	_____	_____	_____
December 1982	_____	_____	_____
December 1980	_____	_____	_____

b. Do these figures include any staff from the parent, assoicated or subsidiary firms identified in Question 8? Yes _____ No _____

Employment in 1986

13. Please allocate the **total** number of people employed in your firm in December 1986, to the following categories.

Management	_____
Professionals	_____
Support Staff	_____
Total	_____

14a. What was your firm's peak employment month in 1986? _____

b. How many employees were there in this peak month?
Full time _____ Part time _____ Total _____

c. In what month was your firm's employment the lowest? _____

d. How many employees were there in the month named in 14c?
Full time _____ Part time _____ Total _____

15. Did you use any subcontractors in December 1986? Yes _____ No _____

Types of Services

16. The following is a list of the major types of services in the business service industries. For your **professional** staff, please estimate the number of employees as of December 1986 that were in each of these sectors: (see guide)

	Number of Employees
• Accounting and Bookkeeping	_____
• Advertising	_____
• Architectural, Engineering, Other Scientific and Technical Services	_____
• Computers and Related Services	_____
• Employment and Personnel Placement	_____
• Legal Services	_____
• Management Consulting	_____
• Other Business Services (see guide)	_____
Total	_____

17. Now would you please provide more detailed information on employment within advertising. Please estimate the percentage of work done in 1986 in each of the following categories:

Advertising and Sales Promotion Campaign Services	_____
Media Representatives	_____
Outdoor Display or Billboard Services	_____
Direct Mail Services	_____
Other Advertising Services	_____
Total	**100%**

Employment Change

18a. What change in total Alberta employment in your firm do you expect over the next 18 months and 3 years.

	Next 18 months	Next 3 years
No change	_____	_____ (Go to Question 19)
Increase	_____ people	_____ people
Decrease	_____ people	_____ people
Don't know	_____	_____

b. If the number of employees in your firm is expected to increase or decrease, in the next three years, which areas will be affected?

	Increase in Employees	Decrease in Employees
Management	_____	_____
Support Staff	_____	_____
Advertising and Sales Promotion Campaign Services	_____	_____
Media Representatives	_____	_____
Outdoor Display or Billboard Services	_____	_____
Direct Mail Services	_____	_____
Other Advertising Services	_____	_____

Industry Trends and Requirements

19. What areas of your industry do you expect to experience growth in the next three years (i.e. copywriting, computer graphics, videos)? Will there be a shortage of skilled manpower in any of these areas? Please be as specific as you can.

_____

_____

_____

20. What types of training are required for the growth areas that you have identified?

_____

_____

_____

21. What factors make it difficult for your firm to provide training for your employees?

_____

_____

_____

22. What training initiatives do you think the provincial government should provide to help your industry?

_____

_____

_____

23. What other steps can the provincial government take to enhance employment in your industry?

_____

_____

_____

Thank you for your cooperation.